

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### BIOLOGY – IX

#### SOME TIPS FOR THE STUDENTS TO STUDY OR FOR PREPARATION OF BIOLOGY PAPER

- \* IX class Biology is one of the most important subject as it is the first step for the aspirants towards their field.
- \* Biology is a theoretical subject and needs good memorizing skills.
- \* Read multiple times as you may not remember the terms.
- \* Biology subjects terms and names are not easy to remember and it takes a lot of practice.
- \* Use flow charts to remember the processes and sequences.
- \* Read previous year paper to find out the more important questions and focus more on more important question .
- \* Try to make your own answers.

#### CHAPTER # 01

##### SHORT TOPICS:

- Q.1. Biology and its branches.
- Q.2. Contribution of Muslims scientist.
- Q.3. QURANIC verses: (i) About the usefulness of plants and animals to human beings  
(ii) Origin of life
- Q. 4. Theory of biogenesis and Abiogenesis in brief.
- Q.5. Needham's experiment.
- Q.6. Names of books of ABDUL MALIK ASMAI.

##### DEFINITIONS:

- (i) Observation (ii) Hypothesis (iii) Theory

##### DIFFERENCES:

- (i) Hypothesis & Theory (ii) Biogenesis & Abiogenesis

#### CHAPTER # 02

##### SHORT TOPICS:

- Q.1. Note on cell wall.
- Q.2. Chromosome and number of chromosomes in different organism cell.
- Q.3. Salient feature of cell theory.
- Q.4. Portal system. Names of its types
- Q.5. Simple tissue and complex tissue with examples
- Q.6. Functions of root, stem and leaves
- Q.7. Names of arteries of arterial system of frog.
- Q.8. Types of respiration in frog.
- Q.9. Conducting tissues.
- Q.10. Types of plastids.
- Q.11. All organelles functions.

##### DISCRIPTIVE TOPICS:

- Q.1. Tissue. Describe animal tissues in detail with the help of labeled diagram.
- Q.2. Tissue. Describe plant tissues in detail.
- Q.3. Mitosis. Names of its phases and significance.
- Q.4. Parts of Brassica flower. Functions of each part. Diagram of stamen and carpel.

**DIFFERENCES:**

- |                                     |                               |
|-------------------------------------|-------------------------------|
| (i) Prokaryotic and Eukaryotic      | (ii) Arteries and veins       |
| (iii) Light and Electron Microscope | (iv) Androecium and Gynoecium |

**DEFINITIONS:**

- |                 |                |               |               |
|-----------------|----------------|---------------|---------------|
| (i) Hibernation | (ii) Digestion | (iii) Nucleus | (iv) Plastids |
|-----------------|----------------|---------------|---------------|

**DIAGRAMS:**

- |                                   |                              |
|-----------------------------------|------------------------------|
| (i) Ventral view of heart of frog | (ii) stem of male frog       |
| (iii) L.S of flower of brassica   | (iv) Arterial system of frog |
| (v) Digestive system of frog      |                              |

**CHAPTER # 03****SHORT TOPICS:**

- Q.1. Scientific name and classification of Man and Frog.
- Q.2. Binomial nomenclature.
- Q.3. Five kingdom classification of Whitaker, Margulis and Schwartz
- Q.4. Units of classification with definitions.
- Q.5. Basis of classification.

**DEFINITIONS:**

- |              |            |             |              |
|--------------|------------|-------------|--------------|
| (i) Taxonomy | (ii) Order | (iii) Genus | (iv) Species |
|--------------|------------|-------------|--------------|

**CHAPTER # 04****SHORT TOPICS:**

- Q.1. Types of bacteria according to their shapes.
- Q.2. Characters of Cyanobacteria
- Q.3. Importance of bacteria.
- Q.4. Respiration in bacteria.

**DISCRIPTIVE TOPICS:**

- Q.1. Define Virus. Characteristics of virus. Name of viral disease.

**DIAGRAMS:**

- |                          |                    |
|--------------------------|--------------------|
| (i) Rod shaped bacterium | (ii) Bacteriophage |
|--------------------------|--------------------|

**CHAPTER # 05****SHORT TOPICS:**

- Q.1. Importance of fungi and algae
- Q.2. Properties of Chlamydomonas
- Q.3. Note on Agaricus

**DEFINITIONS:**

- |              |             |                |
|--------------|-------------|----------------|
| (i) Mycelium | (ii) Hyphae | (iii) Pyrenoid |
|--------------|-------------|----------------|

**DIAGRAMS:**

- |                   |
|-------------------|
| (i) Chlamydomonas |
|-------------------|

**CHAPTER # 06****SHORT TOPICS:**

- Q.1. Characters of angiosperm and gymnosperm.
- Q.2. Classification of bryophytes.

**DISCRIPTIVE TOPICS:**

- Q.1. Importance of vascular plants.

**DIFFERENCE:**

- |                       |                                |
|-----------------------|--------------------------------|
| (i) Monocot and dicot | (ii) Angiosperm and gymnosperm |
|-----------------------|--------------------------------|

**DIAGRAMS:**

- |                    |              |
|--------------------|--------------|
| (i) Adiantum plant | (ii) Funaria |
|--------------------|--------------|



**CHAPTER # 07****SHORT TOPICS:**

- Q.1. Characters of phylum Annelids, Echinodermata Arthropod.  
 Q.2. Metamorphosis and its types.  
 Q.3. Define Parasites. List of parasites with their phylum.  
 Q.4. Note on insects and hydra

**CHAPTER # 08****SHORT TOPICS:**

- Q.1. Characters of class reptilian and Aves.  
 Q.2. Names of groups of class mammalian with examples.

**DISCRIPTIVE TOPICS:**

- Q.1. Fauna and flora of Pakistan.

**DEFINITIONS:**

- |                              |                  |
|------------------------------|------------------|
| (i) Fangs                    | (ii) Operculum   |
| (iii) Cold and warm blooded. | (iv) Hibernation |

**CHAPTER # 09****SHORT TOPICS:**

- Q.1. Note on insectivores plants.  
 Q.2. Photosynthesis with chemical equation.  
 Q.3. Note on heterotrophic plants.  
 Q.4. Note on vitamins.  
 Q.5. Health problems related to nutrition.  
 Q.6. Dental formula.  
 Q.7. Causes of tooth decay.  
 Q.8. Names of enzymes present in pancreatic juice.

**DISCRIPTIVE TOPICS:**

- Q.1. Experiment to prove that light and chlorophyll is necessary for photosynthesis. With diagram.  
 Q.2. Experiment to prove that  $O_2$  is evolved during photosynthesis with diagram.  
 Q.3. Write different types of teeth in man with their functions.  
 Q.4. Disorders of gut.

**DEFINITIONS:**

- |                                         |                  |                    |                  |
|-----------------------------------------|------------------|--------------------|------------------|
| (i) Parasites                           | (ii) Saprophytes | (iii) Insectivores | (iv) Carnivores. |
| (v) Herbivores                          | (vi) Enzymes     | (vii) Appendicitis |                  |
| (viii) Light reaction and Dark reaction |                  |                    |                  |

**DIAGRAMS:**

- (i) Structure of tooth. (ii) Pitcher plant.

**CHAPTER # 10****SHORT TOPICS:**

- Q.1. Note on bronchitis.  
 Q.2. Ventilation and two types of process.  
 Q.3. Components of cigarette and their harmful effects on human health.

**DISCRIPTIVE TOPICS:**

- Q.1. Disorders of respiratory system.  
 Q.2. Aerobic respiration with equation. Anaerobic respiration with equation in animal and in bacteria.

**DIFFERENCES:**

- (i) Combustion and photosynthesis.  
 (ii) Respiration and combustion.

**DIAGRAMS:**

- (i) Human respiratory organs  
 (ii) Relation between cellular respiration and photosynthesis.

**DEFINITIONS:**

- (i) Book lungs      (ii) Gills

**CHAPTER # 11****SHORT TOPICS:**

- Q.1. Functions of blood.  
 Q.2. Importance and advantages of transpiration.  
 Q.3. Note on blood group.

**DISCRIPTIVE TOPICS:**

- Q.1. Components of blood. Describe each components in detail with diagram.

**DIFFERENCES:**

- (i) Anaemia and haemophilia

**DEFINITIONS:**

- (i) Transpiration      (ii) Osmosis      (iii) Diffusion  
 (iv) Rh factor      (v) Heart attack.

**CHAPTER # 12****SHORT TOPICS:**

- Q.1. Role of skin in excretion.  
 Q.2. Kidney problem.  
 Q.3. Note on kidney transplant.

**DEFINITIONS:**

- (i) Latex      (ii) Resins      (iii) Gums      (iv) De –amination

**DIAGRAM:**

- (i) L.S of human kidney.

**CHAPTER # 13****SHORT TOPICS:**

- Q.1. Types of movement in plants.  
 Q.2. Joints and defects of skeletal system.  
 Q.3. Function of skeleton in man.  
 Q.4. Locomotion in protoctists.  
 Q.5. Muscles and its types.

**DEFINITIONS:**

- (i) Heart wood      (ii) Sessile organism      (iii) Motile organism  
 (iv) Osteoporosis      (v) Dislocation of joints

**DIFFERENCES:**

- (i) Exoskeleton & Endoskeleton.      (ii) Axial & Appendicular Skeleton.

**CHAPTER # 14****SHORT TOPICS:**

- Q.1. Names of endocrine glands and their hormones.  
 Q.2. Receptor and names of receptor organs of sight, sound, odour and taste.  
 Q.3. Defects of eye.  
 Q.4. Reflex action.  
 Q.5. Nervous disorder.

**DISCRIPTIVE TOPICS:**

- Q.1. Neurons. Structure of neuron in detail with diagram.  
 Q.2. Hormones. Important plant hormones with specific function.

**CHAPTER # 15****SHORT TOPICS:**

- Q.1. Germination and its two types.  
 Q.2. Pollination with its types.  
 Q.3. Advantages of vegetative propagation.



**DISCRIPTIVE TOPICS:**

- Q.1. Dispersal of seed and fruits. Different methods of dispersal.  
 Q.2. Asexual reproduction in plants. Methods of asexual reproduction.

**DEFINITIONS:**

- (i) Binary fission (ii) Multiple fission (iii) Cloning (iv) Fertilization

**DIFFERENCES:**

- (i) Sexual reproduction & Asexual reproduction

**CHAPTER # 16****SHORT TOPICS:**

- Q.1. Mendel's law of dominance, segregation and independent assortment.  
 Q.2. Disorders of sex linked  
 Q.3. Hereditary disease  
 Q.4. Brief structure of DNA.

**DEFINITIONS:**

- (i) Alleles (ii) Homozygous (iii) Gene  
 (iv) Dominant character (v) Transgenic plant

**DIFFERENCES:**

- (i) Genotype & Phenotype (ii) DNA & RNA

**CHAPTER # 17****SHORT TOPICS:**

- Q.1. Variation and its causes.

**DISCRIPTIVE TOPICS:**

- Q.1. Darwin theory of evolution. Important points of its theory.  
 Q.2. Lamark's theory of evolution.

**DEFINITIONS:**

- (i) Homologous organ (ii) Analogous organ (iii) Vestigial organ.

**CHAPTER # 18****SHORT TOPICS:**

- Q.1. Pollution. Names of pollutants.

**DISCRIPTIVE TOPICS:**

- Q.1. Ecosystem. Components of ecosystem.

**DEFINITIONS:**

- (i) Population (ii) Community (iii) Food web (iv) Food chain  
 (v) Pyramid of energy (vi) Producers (vii) Consumer (viii) Decomposer

**DIFFERENCE:**

- (i) Population & community

**CHAPTER # 19****SHORT TOPICS:**

- Q.1. Contribution of biology in various aspects of human.  
 Q.2. Biotechnology. Uses of bacteria and fungi.  
 Q.3. Antibiotics and its importance.

**DEFINITIONS:**

- (i) Cholera (ii) Apiculture (iii) Sericulture

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## Preparation Paper 2017-2018

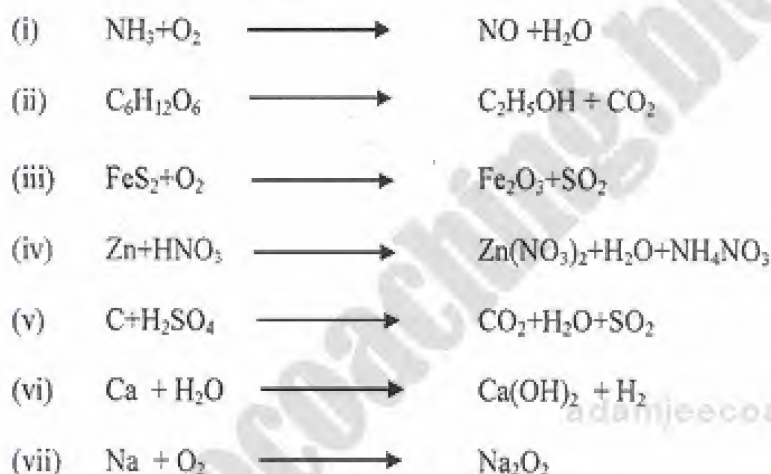
## CHEMISTRY – IX

CHAPTER # 01 (Introduction to Chemistry)

- Q.1. Define chemistry and write the names of its branches.  
 Q.2. Write the name of any three Muslim scientist and write one contribution each.  
 Q.3. Important role of Chemistry in our society.  
 Q.4. Write three significant reasons to study chemistry.  
 Q.5. What is a scientific method? Describe its four stages.

CHAPTER # 02 (Chemical Combinations)

- Q.1. Define: (i) Atomic Mass (ii) Molar Mass  
 (iii) Avogadro's Number (iv) Molecular formula (v) Empirical Formula  
 Q.2. State: (i) Law of Constant Composition (ii) Law of Multiple Proportions  
 Q.3. Describe Landolt's experiment for verification of Law of Conservation Mass.  
 Q.4. What is a chemical reaction? Explain the following types of chemical reactions with example:  
 (i) Addition Reaction (ii) Decomposition Reaction (iii) Combustion Reaction  
 Q.5. Balance the following equation.



Do practice of numericals related to mole and avagadro's number.

CHAPTER # 03 (Atomic Structure)

- Q.1. Write four points of Dalton's Atomic Theory.  
 Q.2. Describe Rutherford's Experiment which led him to the discovery of Nucleus of an Atom.  
 Q.3. Define Bohr's Atomic Model.  
 Q.4. Draw a label diagram to show the separation of Alpha, Beta and Gamma rays and also write two properties of each.  
 Q.5. Define: (i) Atomic Number (ii) Mass Number (iii) Isotopes (iv) Radioactivity  
 Q.6. Write three properties of Cathode Rays.  
 Q.7. Find the number of electron, proton and neutron in:  
 (i)  $^{16}_8\text{O}$  (ii)  $^{23}_{11}\text{Na}^{+1}$

CHAPTER # 04 (Periodicity of Elements)

- Q.1. What are Halogens? Write their names and three properties.  
 Q.2. Write the names of Alkali Metals and write their three properties.  
 Q.3. State Mendeleev's Periodic Law and writes its three salient features and two advantages and two defects.  
 Q.4. State (i) Newland's Octave Law (ii) Dobereiner Triad (iii) Modern Periodic Law.  
 Q.5. What are the Transition Elements? Write their four general properties.  
 Q.6. Define (i) Electronegativity (ii) Electron Affinity (iii) Atomic Radius (iv) Ionization Energy



**CHAPTER # 05 (Chemical Bonding)**

- Q.1. Define Covalent Bond and write its three types with one example for each.  
 Q.2. What is Co – ordinate Covalent Bond? How is a co – ordinate covalent bond formed between  $\text{NH}_3$  and  $\text{H}^+$  ion and  $\text{NH}_3$  and  $\text{HCl}$ ? Explain.  
 Q.3. Write four properties of ionic and covalent compound.  
 Q.4. Define: (i) Metallic Bond (ii) Dispersion Forces (iii) Hydrogen Bonding  
 (iv) Polar and nonpolar covalent bond

**CHAPTER # 06 (States of Matter)**

- Q.1. Define: (i) Fusion (ii) Vaporization (iii) Melting Point  
 (iv) Boiling Point (v) Evaporation (vi) Brownian movement  
 Q.2. Describe the Kinetic Molecular Theory of Matter.  
 Q.3. State the Graham's Law.

**CHAPTER # 07 (Solution and Suspension)**

- Q.1. Define Solubility. Write the names of its factors and describe them.  
 Q.2. Define: (i) Mole Fraction (ii) Molality (iii) Crystallization  
 (iv) Saturated, Unsaturated and Super Saturated Solution  
 Q.3. Write four differences between Solution and Suspension.  
 \* Do practice of numericals related to molarity and mole fractions.

**CHAPTER # 08 (Electrochemistry)**

- Q.1. Define Electroplating and describe the process of Nickel / Chromium Plating.  
 Q.2. Explain the construction and working of Dry Cell and Daniel Cell.  
 Q.3. Define Electrolysis and write its three uses.  
 Q.4. Define (i) Ampere (ii) Coulombs (iii) Equivalent Mass (iv) Faraday (v) Electrolytes  
 \* Do practice of numericals related to Faraday's first law.

**CHAPTER # 09 (Acids, Bases and Salts)**

- Q.1. Write three chemical properties of Acids with balanced equations.  
 Q.2. State Bronsted – Lowry Concept of Acids and Bases and explain it with the example of  $\text{HCl}$  and  $\text{H}_2\text{O}$  or  $\text{NH}_3$  and  $\text{H}_2\text{O}$ .  
 Q.3. State Lewis Concept of Acids and Bases and explain it with the examples.  
 Q.4. Explain by giving balanced equations the Solvay's Process.  
 Q.5. Define Salt and write its three types with examples.  
 Q.6. Define: (i) pH (ii) Polyprotic Acids (iii) Acidity of Bases  
 (iv) Double Salts (v) Neutralization

**CHAPTER # 10 (Thermo Chemistry)**

- Q.1. Define Endothermic and Exothermic Reactions. Give two examples of each.  
 Q.2. Define the Enthalpy of a reaction. How the change in enthalpy is calculated.

**CHAPTER # 11 (Hydrogen and Water)**

- Q.1. Write three uses of Hydrogen gas.  
 Q.2. What is soft water and hard water? Describe how hardness of water can be removed by Clark's method.  
 Q.3. Write four characteristics of Potable Water.  
 Q.4. Define: (i) Water of Crystallization (ii) Nascent Hydrogen  
 Q.5. Write three differences between Heavy Water and Ordinary Water.

**CHAPTER # 12 (Carbon, Silicon and their Compounds)**

- Q.1. What is Allotropy? Write the names of three crystalline and four amorphous forms of Carbon. Also write two characteristics of crystalline form of Carbon.  
 Q.2. Write preparation and two uses of Water Glass.  
 Q.3. What is silica gel? Give its two uses.  
 Q.4. Define: (i) Catenation (ii) Silicates

**CHAPTER # 13 (Nitrogen and Oxygen)**

- Q.1. What is Aqua Regia? How it dissolved gold?  
 Q.2. Describe by giving chemical equations how Ammonia is manufactured by Haber – Bosch Process?  
 Q.3. Define Ozone. Write its three important uses.  
 Q.4. Define Normal Oxides and describe its types with examples.  
 Q.5. Write four uses of Hydrogen Peroxide.  
 Q.6. How Nitric acid is prepared by Ostwald's process.

**CHAPTER # 14 (Sulphur and Its Compounds)**

- Q.1. How Sulphur is extracted by Frasch Process.  
 Q.2. Define Allotropy. Name the allotropic forms of sulphur and give two properties of each.  
 Q.3. How Sulphuric acid is commercially prepared by Contact Process.  
 Q.4. Write three uses of sulphuric acid.

**CHAPTER # 15 (Halogens)**

- Q.1. Describe Industrial preparation of Chlorine by Nelson's Cell.  
 Q.2. Give the Laboratory preparation of HCl.  
 Q.3. What is Bleaching Powder? Write its three uses.  
 Q.4. Write two uses of (i) Bromine (ii) Iodine (iii) Fluorine  
 Q.5. Write the laboratory preparation of Chlorine gas.

**CHAPTER # 16 (Metals and Non – Metals)**

- Q.1. Describe the Extraction of Iron in Blast furnace.  
 Q.2. Describe the electrolysis of Pure Alumina.  
 Q.3. What are the three common Stainless Steel and their compositions.  
 Q.4. Write the composition and one use of (i) Brass (ii) Bronze (iii) Nichrome

**CHAPTER # 17 (Organic Chemistry)**

- Q.1. Write Laboratory Preparation of (i) Ethyne (ii) Ethene. And write two Physical and three Chemical Properties of each.  
 Q.2. What are Isomers. Write three Isomers of Pentane.  
 Q.3. Define (i) Hydrocarbons (ii) Isomerism (ii) Polymerization (iii) Functional Group  
 Q.4. Describe Substitution Reaction with four equations of  $\text{Cl}_2$  and  $\text{CH}_4$ .

**CHAPTER # 18 (Chemical Industries)**

- Q.1. Write causes of food spoilage and two methods of food preservation.  
 Q.2. Describe Saponification. Write the names of four types of soaps.  
 Q.3. What are Plastics? Write the names of their main groups.  
 Q.4. Write the formulae and one use of (i) Polyethene (ii) Polyvinyl Chloride

**GIVE THE CHEMICAL REACTIONS**

- |                                               |                     |                 |            |                    |
|-----------------------------------------------|---------------------|-----------------|------------|--------------------|
| Q.1. Reaction of $\text{H}_2$ with            | (i) Ethene          | (ii) Ca – Metal | (iii) S    | (iv) $\text{Cl}_2$ |
| Q.2. Reaction of Coke with                    | (i) S               | (ii) Al         | (iii) ZnO  | (iv) Steam         |
| Q.3. Reaction of $\text{HNO}_3$ with          | (i) $\text{CaCO}_3$ | (ii) NaOH       | (iii) Mg   | (iv) S             |
| Q.4. Reaction of $\text{H}_2\text{SO}_4$ with | (i) Al              | (ii) C          | (iii) NaOH | (iv) S             |

**WRITE DIFFERENCES BETWEEN**

- (i) Molecular Mass and Formula Mass  
 (ii) Metal and Non Metal  
 (iii) Ionic and Covalent Bond  
 (iv) Ionic and Covalent Compounds  
 (v) Covalent and Co – ordinate Bond  
 (vi) Saturated and Unsaturated Solution  
 (vii) Primary and Secondary Cell  
 (viii) Heavy and Ordinary Water  
 (ix) Diamond and Graphite  
 (x) Exo – thermic reactions and Endo – thermic reactions



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### COMPUTER STUDIES – IX

#### Important Questions for Section “B”

##### (Short-Answer Questions)

- (i) Define Keyboard with its distribution of keys.
- (ii) Define the term hardware and software and why are special and general purpose software prepared?
- (iii) Define Ports and its types.
- (iv) What is memory? Define its types.
- (v) What is scanner? Define its types.
- (vi) Define operating system.
- (vii) Differentiate between:
  - (a) Internal and External Commands of DOS.
  - (b) High Level and low level language.
  - (c) Analogue and Digital Computer.
  - (d) Hard Copy and Soft Copy.
  - (e) Compiler and Interpreter.
  - (f) Serial and Parallel Ports
  - (g) DOS and Windows
- (viii) Write down the capabilities and limitations of computer.
- (ix) Define term computer? What is the main-frame computer and where it is used?
- (x) Define data and information.
- (xi) What is number system? Name its types.
- (xii) Describe the properties of Windows operating system and where we find the deleted files and folder in Windows operating system? Also write the steps to move file or folder over there?
- (xiii) Define CD-writer and Disk drive.
- (xiv) Define floppy disk.
- (xv) Write down the full names of the following abbreviations:
  - (a) 4GL                      (b) RMDIR                      (c) HD                      (d) IBM                      (e) CRT
  - (f) ASCII                      (g) LCD                      (h) BASIC                      (i) DPI                      (j) COBOL
  - (k) HDD                      (l) EPROM                      (m) LAN                      (n) EDVAC
- (xvi) Define magnetic tape.

(xvii) Construct the truth table according to the following rule.

- (a)  $A + AB = A$                       (b)  $(A + B)(A + C) = A + BC$   
 (c)  $\overline{X + Y} = \overline{X} \cdot \overline{Y}$                       (d)  $A + \overline{A} \cdot B = A + B$

(xviii) Convert the following numbers to their equivalent numbers in the given bases.

- (a)  $(422)_{10} = ( \quad )_2$                       (b)  $(1010010)_2 = ( \quad )_{10}$   
 (c)  $(3AB)_{16} = ( \quad )_{10}$                       (d)  $(861)_{10} = ( \quad )_8$   
 (e)  $(110100111011)_2 = ( \quad )_8$

(xix) What are the purpose of Input devices and Output devices in computer system.

(xx) Draw K-map for the following:

- (a)  $AB + \overline{A}B + \overline{A}\overline{B} + A\overline{B}$   
 (b)  $ABC + \overline{A}BC + AB\overline{C} + \overline{A}\overline{B}\overline{C}$   
 (c)  $\overline{A}BC + \overline{A}BC + AB\overline{C} + ABC$   
 (d)  $\overline{A}BCD + ABCD + \overline{A}BC\overline{D} + ABC\overline{D} + \overline{A}BC\overline{D} + \overline{A}BC\overline{D}$

### Important Questions for Section “C”

#### (Detailed-Answer Questions)

- Q.1. (a) Draw the block diagram of CPU and describe its major components.  
 (b) What is language translator? Explain different types of it.
- Q.2. (a) What is Boolean algebra?  
 (b) What is Karnaugh map?
- Q.3. (a) Define monitor and its types.                      (b) What is DOS? Define briefly
- Q.4. (a) Define printer and its types.                      (b) Define plotter and its types.
- Q.5. (a) Describe the different type of computer according to size.  
 (b) Write short note on any two of the following.  
 (i) Icon                      (ii) Taskbar                      (iii) My computer  
 (iv) Desk top                      (v) My documents  
 (vi) Recycle bin                      (vii) Windows Explorer
- Q.6. (a) What do you mean by bus? Write types of bus in detail.  
 (b) Draw generation table.



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

ENGLISH – IX

### Important Questions for Section “B” (Short Answer Question)

#### Q.1. Grammar Section:

- (i) Do as directed:
- \* Tenses
  - \* Active & Passive Voice
  - \* Direct & Indirect Speech
  - \* Parts of Speech
  - \* Articles

**Note:** Following the rules and structures taught in the class during academic session students can excel in aforementioned topics. Learn all the tenses, voices, narrations as per teacher's method.

#### Q.2. (a) PROSE SECTION

##### CHAPTER # 01 (The Last Sermon of the Holy Prophet ﷺ)

- (i) Why did the Quraish turn against the Holy Prophet ﷺ?
- (ii) What are the key points of the last sermon of the Holy Prophet ﷺ?
- (iii) How were the women treated before the advent of Islam?

##### CHAPTER # 02 (Shah Abdul Latif)

- (i) Why did Shah Latif keep sitting on the bank of the lake near the mound?
- (ii) What changes did Latif make in music of his time?
- (iii) What is the message of Latif's poetry? When is Latif's "URS" held? How do people celebrate it?

##### CHAPTER # 03 (Moen-jo-Daro)

- (i) Who was Sir John Marshall? What was his job?
- (ii) What were the professions of people of Moen-jo-Daro? What kind of life did the people of Moen-jo-Daro lead?
- (iii) What probably happened to the people of Moen-jo-Daro?
- (iv) How can we learn more about civilization of Moen-jo-Daro?

##### CHAPTER # 04 (Helen Keller)

- (i) When and where was Helen Keller born? When did she visit Pakistan and why?
- (ii) What was Helen's message to deaf, dumb and blind children?
- (iii) How did Helen learn to speak again?
- (iv) Who was Miss Sullivan? How did she teach Helen?

##### CHAPTER # 05 (Allama Iqbal)

- (i) How did Quaid praise Iqbal's role in a message on his death?
- (ii) What did Allama Iqbal say in his Allahabad presidential address?
- (iii) What lesson did Allama Iqbal learn from the history of Muslims?
- (iv) Why did Allama Iqbal want a separate state for the Muslim of India?

##### CHAPTER # 06 (The Role of Women in Pakistan Movement)

- (i) What was the condition of Muslim women before independence?
- (ii) Who was the first woman to make speech in London's Guild Hall?
- (iii) Who was Bi-Amman? Why is she remembered till today?
- (iv) Describe the role of Begum Rana Liaquat Ali and Begum Mohammad Ali in freedom movement.



**CHAPTER # 07 (Quaid-e-Azam and his vision for Pakistan)**

- (i) What is the greatest achievement of Quaid-e-Azam's life?
- (ii) What message did Quaid-e-Azam deliver on 11<sup>th</sup> August 1947?
- (iii) What did Quaid-e-Azam say about the religious freedom of every citizen?

**CHAPTER # 08 (Health is Wealth)**

- (i) Where do the mosquitoes live? How do we get Malaria and how can we get rid of it?
- (ii) How do flies and dust carry germs to our food and how do they make us ill? How are diseases caused?

**CHAPTER # 09 (The Great War Hero)**

- (i) What lesson do we learn from the Martyrdom of Major Aziz Bhatti?
- (ii) What was major Aziz Bhatti's reply to his commanding officer?
- (iii) When and where did Aziz Bhatti fight? Why did he keep himself on an elevated position?

**CHAPTER # 10 (Nursing)**

- (i) What does "Nursing" means? Who was Florence Nightingale?
- (ii) Where did Holy Prophet ﷺ establish a hospital and who was designated incharge of it?
- (iii) Who was Hazrat Ghifaria? Describe the contribution of Muslims women to nursing?
- (iv) Who was the founder of modern nursing? Why was Florence Nightingale offered a purse of 4500 pound? What did she do with this money?

**CHAPTER # 11 (Responsibilities of A Good Citizen)**

- (i) What are problems of our country? What measures (steps) are being adopted by government to solve these problems?
- (ii) How important are our neighbours according to Holy Prophet ﷺ?

**CHAPTER # 12 (A letter about the Village Life)**

- (i) Who are the important persons in the village? Who are the two workmen needed most in the village?
- (ii) What is Otaq? What do villagers do at "Otaq"?
- (iii) How important are our neighbours according to Holy Prophet ﷺ?

**CHAPTER # 13 (The Secret of Success)**

- (i) What is the moral of the lesson "The Secret of Success"?
- (ii) What could have happened to the king if he had returned earlier from the saint's hut?
- (iii) What were three questions troubled the King? How did saint answer the three questions?

**CHAPTER # 14 (The Guddu Barrage)**

- (i) What is Barrage? How many canals does Guddu Barrage have? And how much area of Sindh is irrigated by it?
- (ii) Where is Guddu Barrage built? When was it put into operation?
- (iii) What are the benefits of Guddu Barrage?



## Q.2. (b)

POEMS SECTION

**Note:** Students are required to attempt any **FOUR** questions in Board Exams.

POEM # 01 (The Neem Tree)

- (i) How does the poetess compare Neem Tree to man? And why does the poetess say that the "Neem Tree" is unafraid?
- (ii) What according to the poetess is the highest aim of life?
- (iii) What does the neem tree look like?

POEM # 02 (Daffodils)

- (i) What are the two moods of poet in the poem Daffodils? Under what conditions does the poet recall the scene?
- (ii) Where did the poet see the host of daffodils? And what did poet feel while looking at the daffodils? Or what wealth did the scene bring to the poet?

POEM # 03 (Children)

- (i) Why does the poet call the children the living poem? What would happen if there were no children? And with what does the poet compare the children?
- (ii) How can the birds and sun shine be in the hearts of children?
- (iii) How are the children different from the poet?

POEM # 04 (Stopping by Woods on a Snowy Evening)

- (i) Why did the horse think it strange to stop by the woods?
- (ii) Why the poet cannot stay to enjoy the beauty of the woods?

POEM # 05 (The Miller of the Dee)

- (i) Who was the happier of the two, the Miller or the King? Why was the Miller thankful to the river Dee?
- (ii) Why did the King Hal envy the Miller?
- (iii) "I thank the river Dee" who is the speaker of these words? Why is he thankful to the river Dee?

POEM # 06 (Abou Ben Adhem)

- (i) "Nay, not so", who said these words and what did Abou Ben Adhem request him?
- (ii) Why did Abou Ben Adhem receive Lord's blessings? Or what is the moral/central idea of the poem?
- (iii) Who wrote the poem Abou Ben Adhem? Who was Abou Ben Adhem? Why was his name on the top of the list?

POEM # 07 (The Rain in Summer)

- (i) Why is the street called fiery?
- (ii) Why do the gutter roar?
- (iii) With what does the poet compare rain? And why?

## Q.3. Important Essays:

- (i) Blessings of Science
- (ii) Advantages and Disadvantages of Internet / Computer
- (iii) My aim in life
- (iv) A memorable day of my life
- (v) War against terrorism / Terrorism in Pakistan
- (vi) Major problems of Karachi
- (vii) Importance of English language / Education / Games
- (viii) Elections in Pakistan

**Q.4. Important Applications:**

- (i) Write an application to Headmaster/Headmistress of your school requesting him / her to allow you for participating in quiz competition held by the Board of Secondary Education Karachi.
- (ii) Write an application to the Headmaster/Headmistress of your school requesting him/her to get more reference books for the school library.
- (iii) Write an application to the Headmaster/Headmistress of your school requesting him/her to issue you the transfer/character/school leaving certificate.
- (iv) Write an application to the Headmaster/Headmistress of your school requesting him/her to properly start the computer classes at your school.
- (v) Write an application to the Headmaster/Headmistress of your school requesting him/her to arrange a trip to PAF Museum/Book Fair at Expo.
- (vi) Write an application to the Headmaster/Headmistress of your school requesting him/her to grant you concession in the school fee.

**OR****Important Letters:**

- (i) Write a letter to your younger brother advising him to leave society of bad company and to be focused on studies.
- (ii) Write a letter to the editor of newspaper drawing the attention of concern authority towards in sanitary conditions (Heaps of garbage, Flowing of main hole, Broken roads) in your locality.
- (iii) Write a letter to the editor of newspaper drawing the attention of Water Board towards shortage of water supply in your locality.
- (iv) Write a letter to the editor of newspaper drawing the attention of K-Electric towards frequent power failure/electricity breakdown.
- (v) Write a letter to your younger sister advising her to join cooking classes.
- (vi) Write a letter to your friend congratulating him / her on his / her success in the Annual Examination.

**Q.5. Translation:**

Students are instructed to translate the sentence with the help of structures & techniques taught by the teacher.

**Q.6. Comprehension:**

Read the following passage and answer the questions given below.

The Arabs were equally corrupt in the field of religious life. They were idle-worshippers and were steeped in every kind of superstition. They divided their gods into male and female. There were 360 idols in the Kabah. The Arabs used to worship them till they were vanished by the Holy Prophet Muhammad صلى الله عليه وسلم. He inspired the idol worshippers with the idea of one God. Within a brief span of about twenty-three years the Arabs were transformed into a religious nation.

- (i) What were the Arabs in the field of religious life?
- (ii) How many idols were in the Kabah?
- (iii) By whom were the idols vanished and how?
- (iv) In how many years did the Arabs transform into a religious nation.
- (v) Write the noun forms of "Corrupt" and "transform".

**OR****Important Short Notes:**

- |                    |                         |
|--------------------|-------------------------|
| (i) Village life   | (ii) The great war hero |
| (iii) Allama Iqbal | (iv) Health is Wealth   |
| (v) Bi-Aman        | (vi) Miss Fatima Jinnah |



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### PAKISTAN STUDIES – IX

#### Important Questions for Section “B” (Short Answer Questions)

Q.2.

- (i) State three importance of Ideology.
- (ii) State any three characteristics of Islamic Ideology.
- (iii) Write the statements of the Quaid-e-Azam about the ideology of Pakistan.
- (iv) Write three sentences about Shah Waliullah.
- (v) Write three objectives of Mujahideen Movement / Faraizi Movement.
- (vi) Write three objectives of Aligarh Movement.
- (vii) Write three sentences on Two Nation Theory.
- (viii) Write any three aims and objectives of the establishment of All India Muslim League.
- (ix) Write few sentences on 3<sup>rd</sup> June Plan.
- (x) State three points on the Role of Quaid-e-Azam as Governor General.
- (xi) Write any three sentences on Pakistan Resolution.
- (xii) Write any three features of Objective Resolution.
- (xiii) Write any three Islamic Provisions of 1973 constitution.
- (xiv) Name any three Governors / Chief Ministers of Sindh.
- (xv) Name three of our neighbouring countries.
- (xvi) Write any three causes of environmental pollution.
- (xvii) Name three deserts of Pakistan.
- (xviii) Write three sentences on Importance of Forests.
- (xix) Write any three uses of Natural Gas.
- (xx) Name three importance industries of Pakistan and their centres of location.
- (xxi) Write any three causes of the rapid growth of population in Pakistan.
- (xxii) Write any three characteristics of the population of Pakistan.
- (xxiii) Write any three characteristics of Culture.
- (xxiv) Write the three Provincial languages of Pakistan and also write the name of poet related to each language.
- (xxv) Write down the three sentences on the utility of Urdu language.
- (xxvi) Write the names of three Muslims and Non Muslims festivals celebrated in Pakistan.
- (xxvi) Write three features of education as mentioned in National Education Policy 1998-2010.
- (xxviii) Write down three problems of education sector of Pakistan.
- (xxix) What is the literacy rate in Pakistan? Write in few sentences.
- (xxx) Write down three objectives of education of the Information Technology.
- (xxxi) Write down the three important goals of Pakistan.
- (xxxii) Write three important duties of Islamic Welfare State.
- (xxxiii) Define:
 

(a) Trade	(b) Commerce
(c) Climate	(d) Imports Exports
(e) Land Pollution	(f) E-Commerce
(g) Teachers Baring	

**Important Questions for Section "C"**  
**(Detailed Answer Questions)**

- Q.3. Define Islamic Ideology. Explain the sources of Islamic Ideology.
- Q.4. Define Democracy Mention the principles of democracy in Islam.
- Q.5. Describe the views of Quaid-e-Azam and Allama IQ.bal on the ideology of Pakistan.
- Q.6. Describe the services of Shah Waliullah and Aligarh Movement in the Muslim revivalist movement of sub continent.
- Q.7. What role was played by the Muslim League in the struggle for Pakistan.
- Q.8. Write down fourteen points of Quaid-e-Azam.
- Q.9. What are the salient features of Objective Resolution.
- Q.10. Why did East Pakistan separated from West Pakistan? Explain the causes.
- Q.11. State the agriculture problems of Pakistan. Describe the steps which are taken by the Government of Pakistan to solve the problems.
- Q.12. What are the advantages of forests? State their importance.
- Q.13. What steps can be taken for increasing the industrial growth in Pakistan.
- Q.14. What are the causes of growth of population in Pakistan.
- Q.15. What are the main components of the scheme of studies of secondary level of education? Explain.
- Q.16. Write the National goals of Pakistan.

**Important Detailed Notes**

- (i) Importance of Urdu as National Language.
- (ii) Welfare State
- (iii) Importance of location of Pakistan.
- (iv) Main Minerals of Pakistan.
- (v) Cash Crops
- (vi) Faraizi Movement
- (vii) Pakistan Railways
- (viii) Main Industries of Pakistan
- (ix) Nuclear Energy
- (x) Environmental Problems
- (xi) Constitution of 1973
- (xii) Information Technology
- (xiii) Technical and Vocational Education
- (xiv) Two Nation Theory

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# آدم جی کو چنگ سینٹر

تیاری پرچہ برائے امتحانات ۲۰۱۷-۲۰۱۸

مطالعہ پاکستان۔ جماعت نہم

اہم سوالات برائے حصہ "ب" (مختصر جوابات کے سوالات)

سوال نمبر ۲:

- (i) نظریے کی اہمیت بیان کیجئے۔
- (ii) اسلامی نظریے کی تین خصوصیات تحریر کیجئے۔
- (iii) نظریہ پاکستان قائد اعظم کے ارشادات کی روشنی میں واضح کیجئے۔
- (iv) شاہ ولی اللہ کی تین اعلیٰ خدمات تحریر کیجئے۔
- (v) تحریک مجاہدین یا فرانٹسی تحریک کے تین مقاصد تحریر کیجئے۔
- (vi) علیگڑھ تحریک کے تین مقاصد تحریر کیجئے۔
- (vii) دو قومی نظریہ پر تین جملے لکھیں۔
- (viii) آل انڈیا مسلم لیگ کے قیام کے تین اغراض و مقاصد تحریر کیجئے۔
- (ix) ۳ جون پلان سے کیا مراد ہے؟ چند جملوں میں لکھیے۔
- (x) بحیثیت گورنر جنرل قائد اعظم کا کردار تین جملوں میں بیان کیجئے۔
- (xi) قرارداد پاکستان پر تین جملے تحریر کیجئے۔
- (xii) قرارداد مقاصد کے کوئی تین اہم خدوخال لکھیے۔
- (xiii) ۱۹۷۱ء کے آئین کی کوئی تین اسلامی دفعات تحریر کیجئے۔
- (xiv) سندھ کے تین وزرائے اعلیٰ اگورنوں کے نام تحریر کیجئے۔
- (xv) پاکستان کے تین پڑوسی ممالک کے نام تحریر کیجئے۔
- (xvi) ماحولیاتی آلودگی کے تین اسباب تحریر کیجئے۔
- (xvii) پاکستان کے کوئی تین ریگستانوں کے نام لکھیں۔
- (xviii) جنگلات کی اہمیت پر تین جملے تحریر کیجئے۔
- (xix) قدرتی گیس کے کوئی تین استعمالات لکھئے۔
- (xx) پاکستان کی تین اہم صنعتوں اور آب کے مراکز کے نام لکھئے۔
- (xxi) پاکستان میں تیزی سے بڑھتی ہوئی آبادی کی کوئی تین وجوہات لکھیں۔
- (xxii) پاکستان کی آبادی کی کوئی تین خصوصیات تحریر کریں۔
- (xxiii) ثقافت کی تین خصوصیات تحریر کیجئے۔

(xxiv) پاکستان کی کوئی تین صوبائی زبانوں کے نام لکھئے اور ہر زبان کے ایک ایک شاعر کا نام بھی لکھیے۔

(xxv) اردو زبان کی افادیت پر تین جملے لکھئے۔

(xxvi) پاکستان میں منائے جانے والے تین مسلمانوں کے اور تین غیر مسلمانوں کے تہواروں کے نام لکھیے۔

(xxvii) قومی تعلیمی پالیسی ۱۹۹۸ء میں بیان کردہ تعلیم کے کوئی تین اہم خدوخال تحریر کیجئے۔

(xxviii) پاکستان میں تعلیم کے شعبے کے کوئی تین اہم مسائل لکھیے۔

(xxix) پاکستان میں خواندگی کی شرح کس حالت میں ہے۔ چند جملوں میں لکھیے۔

(xxx) انفارمیشن ٹیکنالوجی کی تعلیم کے کوئی تین مقاصد لکھئے۔

(xxxi) پاکستان کے تین اہم قومی مقاصد لکھیے۔

(xxxii) اسلامی فلاحی مملکت کی تین اہم ذمہ داریاں لکھیے۔

(xxxiii) تعریف کیجئے۔

(a)	کاروبار	(b)	تجارت	(c)	آب و ہوا	(d)	درآمدات برآمدات
(e)	زمینی آلودگی	(f)	ای۔ تجارت	(g)	تربیت اساتذہ		

### اہم سوالات برائے حصہ "ج" (تفصیلی جواب کے سوالات)

- سوال نمبر ۳۔ اسلامی نظریہ سے کیا مراد ہے؟ اسلامی نظریہ کے ماخذ تفصیل سے بیان کیجئے۔
- سوال نمبر ۴۔ جمہوریت کی تعریف بیان کیجئے نیز اسلام میں جمہوریت کے اصول تفصیل سے بیان کیجئے۔
- سوال نمبر ۵۔ نظریہ پاکستان پر قائد اعظم اور علامہ اقبال کے افکار کی وضاحت کیجئے۔
- سوال نمبر ۶۔ برصغیر میں تحریک احیائے اسلام میں سے شاہ ولی اللہ اور علی گڑھ تحریک کی خدمات بیان کیجئے۔
- سوال نمبر ۷۔ قیام پاکستان کی جدوجہد کے سلسلے میں آل انڈیا مسلم لیگ کا کردار تفصیل سے بیان کیجئے۔
- سوال نمبر ۸۔ قائد اعظم کے چودہ نکات بیان کیجئے۔
- سوال نمبر ۹۔ قرارداد مقاصد کے اہم خدوخال کی وضاحت کیجئے۔
- سوال نمبر ۱۰۔ مشرقی پاکستان، مغربی پاکستان سے کیسے جدا ہوا۔ اسباب بیان کیجئے۔
- سوال نمبر ۱۱۔ پاکستان کے اہم زرعی مسائل کیا ہیں؟ ان مسائل کو حل کرنے کے لئے کئے جانے والے حکومت پاکستان کے اقدامات کی وضاحت کیجئے۔
- سوال نمبر ۱۲۔ جنگلات کے فوائد کیا ہیں اور ان کی اہمیت بیان کیجئے۔
- سوال نمبر ۱۳۔ پاکستان میں صنعتی ترقی کے فروغ کے لئے اقدامات کئے جانے چاہئیں۔
- سوال نمبر ۱۴۔ پاکستان میں افزائش آبادی کی وجوہات بیان کیجئے۔
- سوال نمبر ۱۵۔ تعلیم کا ثانوی سطح پر تعلیمی نصاب کے اہم اجزاء کیا ہیں؟ بیان کیجئے۔
- سوال نمبر ۱۶۔ پاکستان کے اہم قومی مقاصد بیان کیجئے۔

### اہم تفصیلی نوٹ

(i)	اردو کی اہمیت بطور قومی زبان	(ii)	فلاحی مملکت	(iii)	پاکستان کے کل وقوع کی اہمیت
(iv)	پاکستان کی اہم معدنیات	(v)	نقد آور فضلیں	(vi)	فرانسیسی تحریک
(vii)	پاکستان ریلوے	(viii)	پاکستان کی اہم صنعتیں	(ix)	نیوکلیائی توانائی
(x)	ماحولیاتی مسائل	(xi)	۱۹۷۳ء کا آئین	(xii)	انفارمیشن ٹیکنالوجی
(xiii)	فنی اور پیشہ ورانہ تعلیم	(xiv)	دو قومی نظریہ		



# آدم جي ڪوچنگ سينٽر

سالياني امتحان جي تياري جو پيپر ۲۰۱۸ء - ۲۰۱۹ء

مضمون: سنڌي

(حصو «ب»)

اهم سوال:- (۱) هن حج کي «حجۃ الوداع» چوڻو چيو وڃي ۽ نبي ڪريم ﷺ جن زالن، ٻارن، يتيمن ۽

مسڪينن واسطي ڪهڙيون نصيحتون ڪرڻ فرمايون؟

(۲) اسلام قبول ڪرڻ کان پوءِ حضرت سلمان ڪهڙيون خدمتون سرانجام ڏنيون؟

(۳) حضرت امام جعفر صادق ڪهڙن استادن وٽ تعليم حاصل ڪئي؟

(۴) قائداعظم شاگردن کي نصيحت ڪندي ڪهڙين ڳالهين ڏانهن سندن ڌيان ڇڪايو آهي ۽

قائداعظم جي خيال موجب پاڪستان ڪهڙن مقصدن کي حاصل ڪرڻ لاءِ قائم ڪيو ويو آهي؟

(۵) مائي خيرِي ڪهڙا ڪهڙا خير جا ڪم ڪيا؟ مائي خيرِي ڪڏهن وفات ڪئي ۽ سندس

مقبرو ڪٿي آهي؟

(۶) بين الاقوامي ڪهڙا ڪهڙا ڪم ڪندي آهي ۽ بين الاقوامي عدالت جي ججن جي چونڊ

ڪهڙي ريت ٿيندي آهي؟

(۷) واڍي مائي کي ڪهڙو شرط ٻڌايو ۽ چوڪري اُٺ جي هڏن مان ڇا ٺاهيا؟

(۸) اتحاد مان ڪهڙا فائدا آهن ۽ اتحاد نه هئڻ ڪري قوم کي ڪهڙو نقصان ٿيندو؟

(۹) مولانا وفائي جي ننڍپڻ بابت اوهان کي ڪهڙي خبر آهي ۽ مولانا وفائي کي ڪهڙن

بزرگن جي ڪچهري مان فيض حاصل ٿيو؟

(۱۰) ڊزائين ۽ رنگ جي لحاظ کان اجرڪ جا گهڻا قسم آهن، اجرڪ جا ڪهڙا چار رنگ

ٿيندا آهن ۽ اجرڪ سنڌ جي ڪهڙن شهرن ۾ ٺهي ٿي؟

(۱۱) ميرن جي اخلاق بابت برنس ڇا لکيو آهي ۽ ميرن جي پوشاڪ ڪهڙي قسم جي هئي؟

(۱۲) نوري جي قبر ڪٿي آهي ۽ ڪينجهر «لڳڻ» اصطلاح جي معنيٰ ڪهڙي آهي؟

(۱۳) سومرن جي دور جون سنڌي ادب بابت ڪهڙيون ڳالهيون معلوم ٿيون آهن ۽ عربن جي

دور ۾ سنڌي ادب جا ڪهڙا اهڃاڻ ملن ٿا؟ ٽالپرن جي دور جا ڪهڙا مشهور شاعر

ٿي گذريا آهن؟

(۱۴) سليم وڌيڪ ڇو نه پڙهي سگهيو ۽ ڳوٺ جي تباهي ڏسي ارشد دل ۾ ڪهڙو

فيصلو ڪيو؟

هلندڙ.....

(۱۵) بادشاه پھريون ۽ پيو پيرو ڪهڙو خواب لڌو؟

(۱۶) پنھون جي جدائي ۾ سسئي کي پنيور ڪيئن ٿو نظر اچي ۽ پنهنجي محبوب جي انتظار ۾

شاعر جو وقت ڪيئن ٿو گذري؟

(۱۷) ڏيئي ۾ ڪهڙي چڱائي رکيل آهي ۽ ڏيئي وٽ نوڙت جي ڪهڙي نشاني آهي؟

(۱۸) بلندي حاصل ڪرڻ لاءِ شاعر ڪهڙي صلاح ٿو ڏي ۽ اسلام جي ڪلمي لاءِ شاعر

ڪهڙي دُعا ٿو گهري؟

(۱۹) نصريور ڪهڙن هنرن جي ڪري مشهور هو ۽ ڪلهوڙن جي آخري ڏينهن ۾ نصريور ۾

ڪنهن ڦرلٽ ڪئي؟

(۲۰) جنگ ۽ فساد جو باعث ڪهڙيون ڳالهيون آهن؟ هاري جي محنت ڪهڙو رنگ ٿي لڳائي

(۲۱) رڌپچاءُ ۽ کاڌي پيئي جا ٿانو ڪهڙي ريت صاف ڪرڻ گهرجن؟

اهم جملا :- رڻ - پڌرنا سو - سعمار - هڳاءُ - داستان - نيرو - ناماچار - وندر - هاڪارا -

نسبي - ڪارڻ - ڳڻتي - بيلي - هاڪ - جدوجهد - ٻانهن - رحلت - رائج - سوکڙي - ڏونگر -

پڇاڻو - احترام - سانت - بهبود - ڏيساور - مهاپاري - - چمار - داستان - اوج -

چار - ڳنڍڻ - چهچتو - جيئرو - رائج - سهائي - جهونن .

اهم گرامر :- حرف جملو - اسم - فعل - ضمير - ظرف

واحد، جمع - لفظ، ضد ۽ مذڪر، مؤنث ڏهن سالن جي پيرون مان ياد ڪندا

### (حصو «ح»)

اهم مضمون :- تندرستي هزار نعمت آهي - محنت جي عظمت - قومي هيرو - ڪراچي شهر - منهنجو

پسنديده ڪتاب / شاعر - ڪلفتن جو سير - وطن جي حب - بهار جي موسم

اهم درخواستون :- اسڪول ۾ داخلا/اسڪول ڇڏڻ لاءِ ، ڪريڪٽر ۽ پروفيزر سرٽيفڪيٽ لاءِ، في

معافي لاءِ - موڪل لاءِ، ٻارن جو عالمي ڏهاڙو ملهائڻ لاءِ - عيد ميلاد النبي ﷺ ملهائڻ لاءِ، چنڊو گڏ ڪرڻ لاءِ، ۱۶،

ڊسمبر جو ڏهاڙو ملهائڻ لاءِ -

اهم خط :- دوست کي ڪراچي گهمڻ لاءِ خط، دوست کي بيماري مان صحت يابي جو خط/امتحان

۾ ڪاميابي لاءِ ، والد صاحب کي ڪتاب ۽ ڪاپيون خريد ڪرڻ لاءِ ۽ پئسا طلب ڪرڻ لاءِ.

اهم سمجهاڻيون :- (۲) دُعا نظم جو شعر نمبر: ۴، ۵ (۳) نظم نيڪي: بند ۱، ۲، ۳

(۴) نظم سچل سرمست جا بيت: شعر نمبر ۳، ۴ (۵) نظم ڏيئو: بند نمبر ۲، ۳، ۴، ۵، ۶

(۶) ٻڌايون سڳ جو ڪو سنسار نظم: شعر نمبر ۱، ۲ (۷) پيارا وطن نظم: شعر نمبر ۱، ۲، ۳، ۴

۶ (۸) هاري نظم: شعر نمبر ۱، ۲، ۳، ۴، ۵.

اهم خلاصا :- حضرت امام جعفر صادق - هنر دولت آهي - ڪينجهر ڍنڍ - ميرن جي درٻار

- اتحاد، تنظيم ۽ يقين محکم - مولانا دين محمد وفائي - اجرڪ - جهڙو راج تهڙو ڀاڳ



**ENGLISH – X**

- (i) When was King Faisal made King? How did King Faisal develop his country?
- (ii) Why was King Faisal against the state of Israel? What did he do for Arabs in war against Israel?
- (iii) How was King Faisal killed? How did Muslims feel over the death of the King?
- (iv) Why did King Faisal consider education very important for the progress of his people and what did he do for it?
- (v) What were King Faisal feelings about Pakistan?
- (vi) What did King Faisal do for the health-care of his people?



**CHAPTER # 8 (Dignity of Work)**

- (i) How did the Holy Prophet ﷺ and his companion set an example of dignity of work?
- (ii) How did Sultan Nasir-Uddin earn his living?
- (iii) How did Emperor Aurangzeb earn his living? How do Muslim rulers earn their living?
- (iv) What does everyone do in China? **OR** How has China been able to make such a rapid progress in all walks of life?
- (v) How did the famous Muslim rulers set the examples of dignity of work?

**CHAPTER # 11 (A Village Fair)**

- (i) What is Tent-Pegging? And how is it played?
- (ii) How did jugglers and conjurers entertain the people at the village fair?
- (iii) What were different entertainments in the fair for children?
- (iv) What made the dogs run in the dog race?
- (v) What was a man doing on a tight rope?

**CHAPTER # 13 (Shopping)**

- (i) When do we use meter, kilometer, kilogram and litre?
- (ii) What is the difference between beef and mutton?
- (iii) Why the children were surprised when their mother asked them to go for shopping with her?
- (iv) What did mother tell the children about the disadvantages of polythene bags?

**OR**

How do the polythene bags harm for the environment?

**CHAPTER # 15 (An African Village)**

- (i) Why do bush dwellers of Nigeria use wood at night?
- (ii) Who tends the cash and food crops in Nigeria?
- (iii) Why can Nigerian farmers not rear cattle?
- (iv) What are major exports of Nigeria and how are they extracted?
- (v) Where is Nigeria? What sort of a country is it?

**CHAPTER # 17 (The Inheritors)**

- (i) What property did the two brothers inherit from father and what did Azam suggest for division?
- (ii) Who fed the cow and who got the milk? Why did Azam not give dates to Moazzam?
- (iii) What did Moazzam do when Azam was milking the cow?
- (iv) How did Moazzam teach the lesson to his elder brother?
- (v) How can you say that Moazzam was simple and trusting?

**CHAPTER # 19 (The Khyber Pass)**

- (i) What is Khyber Pass? How long is it? Where do we go through this pass?
- (ii) What is the commercial/historical importance of Khyber Pass?
- (iii) What is Torkham? What did students see there? And who welcomed them?
- (iv) Who lives in the mountains of the Khyber Pass and which is the highest place along the pass?
- (v) What were the feelings of children when they stood looking of the little of for visiting the Khyber Pass?

**CHAPTER # 21 (How to Do Things)**

- (i) Describe the process of mending a puncture?
- (ii) How is the puncture mended at a cycle shop?
- (iii) What does the kit for mending the puncture contain?
- (iv) What games were arranged for the guests?
- (v) How are the "Parcel" and "Treasure hunt" game played?
- (vi) What was the menu of the party and what was written on the cake?

**CHAPTER # 23 (Making a Summary)**

- (i) How to make a good summary? or  
What skills are required to make a good Precise? Describe any three of them.
- (ii) What is a good summary?



**CHAPTER # 25 (The Customs of Various Regions of Pakistan)**

- (i) Who are the famous saints of Sindh? What are the famous craft of Sindh?
- (ii) What do you know about the Civilization of "Valley of Mehran"?
- (iii) What is Chopal? What Punjabi do there in the evening?
- (iv) How and why does a tribesman announce the birth of a son?
- (v) Why is the Punjab called "the heart of Pakistan" or "seat of learning"?
- (vi) What is the result of extreme weather on the lives of Balochis?
- (vii) What is the natural scenery of various regions of Pakistan?
- (viii) What is a "Sandly"?
- (ix) What are the famous craft of Sindh or Punjab?

**Q.2. (b)****POEM SECTION****POEM # 1 (The Voice of God)**

- (i) Who wrote the poem "The Voice of God", and what is the message of the poem?
- (ii) Why did the poet climb the steeple and why did God ask him to go down again in the poem "The Voice of God"? **OR** What does the poet want us to do?
- (iii) With reference to the poem, "The Voice of God"; explain the idea of serving the humanity.

**POEM # 2 (Little Things)**

- (i) Who wrote the poem "Little Things"? What was the idea behind the poem and how can we make our world an Eden?
- (ii) What is the importance of little things in our daily life?

**POEM # 3 (From a Railway Carriage)**

- (i) How is the railway journey a source of happiness? Or what pleasure does the railway journey give to the poet?
- (ii) Who is a tramp? What was he doing when the railway carriage passed by?
- (iii) What did the poet see from a railway carriage?

**POEM # 4 (A Nation Strength)**

- (i) What can make a nation strong? What kind of men can lift their country to the sky?
- (ii) Why the people called the strength of nation? What is the message of the poem "A Nation's Strength".
- (iii) What kind of people raise the dignity of nation?

**POEM # 5 (Beautiful Hands)**

- (i) Whose hands are praised in the poem "Beautiful Hands" and why?
- (ii) What does poetess mean by the words "these hands must folded be"?
- (iii) Why does the poetess intend to clasp her mother's hand?

**POEM # 6 (Speak Gently)**

- (i) Why should we speak gently to others? What are advantages of speaking gently?
- (ii) What lesson do we learn from poem "Speak Gently"?
- (iii) How can we win the heart of people?

**POEM # 7 (The Hand that Rocks the Cradle)**

- (i) Why does the poet compare mother's hand to a rainbow?
- (ii) Why does the poet say that the prayer from mothers on earth mingle with that said in heaven?
- (iii) What is guided by angles and how? What role of mother as brought out in the poem "The Hand that Rocks the Cradle"?
- (iv) Explain how the poet gives the credit for all great achievements of people to their mothers?



**POEM # 8 (King Bruce)**

- (i) Who has composed the poem "King Bruce"? What lesson do we get from it? Or what does it teach to its reader?
- (ii) Who was King Bruce? Why did king bruce decide not to give up? What lesson did he learn from the spider?
- (iii) Why was King Bruce sad? How did failure of spider brace the mind of King Bruce?

**POEM # 9 (Casabianca)**

- (i) Who was Casabianca? What qualities did the boy in "Casabianca" possess?
- (ii) Why did Casabianca not leave the burning deck? What lesson do we learn from poem "Casabianca"? **OR** What does the poetess teach you through the poem Casabianca?

**POEM # 10 (The Minstrel Boy)**

- (i) Who was the Minstrel Boy? What had he girded on? What did he say about it?
- (ii) Why did Minstrel Boy destroy his harp?
- (iii) "The Minstrel Boy" expresses the patriotic feeling do you agree?

**POEM # 11 (The Uses of Adversity)**

- (i) What is the moral of the poem "The uses of Adversity"?
- (ii) What examples are given in the poem "The Uses of Adversity" to show hardship make life better?

**POEM # 12 (There's a Good Time Coming)**

- (i) Who has written the poem "There's a Good Time Coming"?
- (ii) What future does the poet promise for us in the poem "There's a Good Time Coming"? Do you agree with the poet, why?

**POEM # 13 The Man Who Wins**

- (i) What according to the poet, qualities are needed by a person to get success in life in the poem "The Man Who Wins"?
- (ii) Who wrote the poem "The Man Who Wins"? Do you agree with the message of the poem? Why?

### **Important Questions for Section "C"**

#### **(Detailed Answer Question)**

**Q.3. Important Essays:**

- |                                              |                                                 |
|----------------------------------------------|-------------------------------------------------|
| (i) Terrorism / War against Terrorism        | (v) Importance of Computer Education            |
| (ii) An exciting Cricket Match               | (vi) Blessings of Science                       |
| (iii) Traffic Problems / Hazards in Karachi. | (vii) Uses and Abuses of Internet               |
| (iv) Karachi, Mega City Mega Problems        | (viii) Environmental Pollution / Global Warming |

**Q.4 Important Applications**

- (i) Write an application to the Headmaster/Headmistress of your school requesting him/her to issue you the provisional/sports/character/transfer certificate.
- (ii) Write an application to the Headmaster/Headmistress of your school requesting him/her to grant you leave after recess as you have an appointment with the doctor.
- (iii) Write an application to the Headmaster/Headmistress of your school to allow your class to visit the Science or Computer Exhibition at Expo Centre.
- (iv) Write an application to the Headmaster/Headmistress of your school to grant concession in school fee.
- (v) Write an application to the Headmaster/Headmistress of your school to allow you to participate in inter-school quiz competition?
- (vi) Write an application to the Headmaster/Headmistress of your school requesting him/her to grant you leave for fifteen day to perform Umrah.



OR

**Important Letters:**

- (i) Write a letter to the editor of a newspaper complaining against the bad condition of roads in your city.
- (ii) Write a letter to the Mayor/Nazim of your area complaining of the insanitary condition in your area and the negligence of the staff responsible for the job.
- (iii) Write a letter to your father asking him to send some money for buying books.
- (iv) Write a letter to the Editor complaining against frequent power failure / electricity breakdown in your area.
- (v) Write a letter to the Editor complaining about shortage of water supply.
- (vi) Write a letter to the Editor of a newspaper complaining against the heap of garbage in the city.

**Q.5. Translation:**

Students are instructed to translate the sentence with the help of structures & techniques taught by the teacher.

OR

**Summary**

The world victory is generally associated in our mind with war and calls up vision of battles, bloodshed and conquest by force and we think of war as a glorious thing. But when we think of the achievements of great man, statesmen, scholars, social reformers, scientists, explorers, discoverers and honest workers for the betterment of human race and progress of civilization of the world, we realize, that the victories of peace are even glorious than the victories of war.

**Q.6. Passage/Comprehension:**

Another thing that is essential to good health is rest. When food is burnt in the cells of the body at a high rate of speed the blood cannot carry away the waste materials as fast as they are formed. They therefore accumulate in the cells and prevent them from working properly, causing fatigue. Fatigue makes people ill-tempered slows up their thinking power and causes them to make mistakes and lower their resistance to disease. Sitting or lying down quietly is a good way of resting and so is working at some hobby that does not require much physical energy but nothing can take the place of sleep.

- (i) Why can the blood not carry away the waste materials as fast as they are formed?
- (ii) What is the cause of fatigue?
- (iii) How is fatigue harmful to us?
- (iv) What is the best form of rest for a man?
- (v) Give the noun forms of 'prevent' and 'accumulate'.

OR

Write a short note on any one of the following:

- |                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| (i) The Chopal            | (ii) A Model Farm | (iii) Dignity of Work |
| (iv) Khyber Pass          | (v) Tent-Pegging  | (vi) King Faisal      |
| (vii) Village Fair / Life | (viii) King Bruce | (ix) Fishing          |
| (x) Casabianca            |                   |                       |

# آدم جی کو چنگ سینٹر

تیاری پیپر برائے امتحانات ۲۰۱۷-۲۰۱۸

اسلامیات (لازمی)۔ جماعت دہم

اہم سوالات برائے حصہ ب (مختصر جواب کے سوالات)

- (i) سورۃ الانفال میں مومنین کی کیا صفات بیان کی گئی ہیں؟
- (ii) سورۃ الانفال میں مسلمانوں کی جہاد کے لئے تیاریاں دیکھ کر منافقین نے کیا تبصرہ کیا؟
- (iii) سورۃ الانفال کی روشنی میں تقویٰ کے کوئی تین انعامات تحریر کیجئے۔
- (iv) سورۃ احزاب میں منہ بولے بیٹے کے بارے میں کیا ہدایت دی گئی ہے؟
- (v) قرآن کریم نے جہاد کی تیاری کے بارے میں کیا حکم دیا؟
- (vi) سورۃ الاحزاب میں اللہ تعالیٰ نے رسول اللہ ﷺ کا کیا مقام و منصب بیان کیا ہے؟
- (vii) نبی کریم ﷺ پر درود و سلام کی کیا اہمیت ہے اور اسکے متعلق مسلمانوں کو کیا حکم ہے؟ نیز حضرت محمد ﷺ سے محبت پر تین جملے لکھیے۔
- (viii) سورۃ احزاب میں مسلمان عورتوں کو پردے کے بارے میں کیا ہدایت دی گئی ہے؟
- (ix) احادیث کی روشنی میں مندرجہ ذیل سوالات کے جوابات تحریر کیجئے۔
  - ۱۔ لا الہ الا اللہ میں لفظ اللہ سے کیا مراد ہے؟
  - ۲۔ تکمیل ایمان کے چار اصول تحریر کیجئے۔
  - ۳۔ حدیث کی روشنی میں نماز کی اہمیت اور خطبہ جمعہ کے تین آداب تحریر کیجئے۔
  - ۴۔ حدیث کی روشنی میں روزے کی اہمیت اور روزہ دار کی دو خوشیوں سے کیا مراد ہے؟
  - (x) قرآن مجید کو پچھلی کتابوں کے لئے مصححین کیوں کہا گیا ہے۔ نیز کاتب وحی سے کیا مراد ہے؟
  - (xi) وضو اور غسل کے فرائض تحریر کیجئے۔ نیز مسنون غسل کون کون سے ہیں؟ مسنون غسل کا طریقہ تحریر کیجئے اور طہارت کے پانچ فائدے بیان کریں۔
  - (xii) سورۃ الانفال میں دو گروہوں سے کیا مراد ہے؟
  - (xiii) کفار کے ساتھ مقابلے کی صورت میں مسلمانوں کو کون سے کام کرنے اور کن باتوں سے بچنے کا حکم دیا گیا ہے؟
  - (xiv) شر الدواہب کے معنی لکھیے اور اس سے کون لوگ مراد ہیں؟
  - (xv) واذا یسکروا بلک الذین کفروا میں کس واقعہ کی طرف اشارہ ہے؟



- (xvi) کفار کے مطالبے کے باوجود اللہ تعالیٰ نے ان پر عذاب کیوں نازل نہ کیا؟
- (xvii) اللہ تعالیٰ نے غزوہ بدر میں مسلمانوں کے لئے کن خصوصی انعامات کا ذکر فرمایا ہے؟
- (xviii) سورۃ الانفال میں فرعون اور آل فرعون کی ہلاکت اور بربادی کے کیا اسباب بیان کیے گئے ہیں؟
- (xix) اللہ تعالیٰ نے مسلمانوں کو جہاد پر ابھارنے کیلئے کیا ترغیب دی؟
- (xx) ہجرت سے کیا مراد ہے؟ اللہ تعالیٰ نے ہجرت اور نصرت کے بارے میں کیا باتیں ارشاد فرمائیں؟ نیز کن موقعوں پر ہجرت کرنا لازمی ہے؟
- (xxi) قولہ اقولاً سدیداً کا مفہوم بتائیے اور ہمارے لئے اس میں کیا رہنمائی ہے؟
- (xxii) اللہ تعالیٰ نے ہجرت کر کے آنے والی مومن عورتوں کے بارے میں اہل ایمان کو کیا تلقین فرمائی ہے؟
- (xxiii) جب اہل کفر مسلمانوں پر غلبہ پالیتے ہیں تو انکا اہل ایمان کے ساتھ کیا سلوک ہوتا ہے؟
- (xxiv) سورۃ الممتحہ میں حضرت ابراہیمؑ کے کس اسوہ حسنہ کی پیروی کا حکم دیا گیا ہے؟
- (xxv) قرآن کی روشنی میں ختم نبوت کا مفہوم واضح کریں۔
- (xxvi) اللہ تعالیٰ کی محبت و اطاعت پر تین جملے تحریر کیجئے نیز اللہ تعالیٰ کی تین صفات حسنہ تحریر کیجئے۔
- (xxvii) کفار کی جانب سے عہد شکنی کی صورت میں اللہ تعالیٰ نے نبی ﷺ کو کیا ہدایات دیں؟
- (xxviii) اللہ تعالیٰ نے ازواج النبی ﷺ کو کن دو باتوں میں سے ایک کو اختیار کرنے کا حکم دیا؟
- (xxix) سورۃ الممتحہ کی روشنی میں بتائیے کہ اللہ تعالیٰ نے کس طرح کے کفار کے ساتھ عدل و احسان کی اجازت دی ہے نیز اہل ایمان کا اسلام دشمن کافروں کے ساتھ کیا سلوک ہونا چاہیے؟
- (xxx) سورۃ الممتحہ میں دشمنان حق کی کن باتوں کے سبب انھیں دوست اور راز دان بنانے سے منع کیا گیا ہے؟
- (xxxi) شکر کے تین طریقے بیان کیجئے۔
- (xxxii) رشوت کے بارے میں آپ ﷺ کا کیا فرمان ہے؟
- (xxxiii) کس پیغمبر کا مہر مشہور ہے اور کیوں؟ صبر کرنے پر اللہ تعالیٰ نے انھیں کیا لقب دیا؟
- (xxxiv) قرآن پاک پڑھنے اور پڑھانے کے بارے میں نبی پاک ﷺ کا کیا ارشاد ہے؟ نیز قرآن پاک کے تین فضائل بیان کریں۔
- (xxxv) سورۃ الاحزاب کی ابتدائی آیات میں رسول اکرم ﷺ کو کن باتوں کی تلقین کی گئی ہے؟
- (xxxvi) سورۃ الاحزاب میں جہاد میں رکاوٹ ڈالنے والوں کے بارے میں کیا فرمایا گیا ہے؟ نیز سورۃ الاحزاب میں قیامت کے متعلق کیا فرمایا گیا ہے؟
- (xxxvii) اللہ اور اس کے رسول ﷺ کے فیصلوں کے بارے میں اہل ایمان کا کیا طرز عمل ہونا چاہیے؟
- (xxxviii) اہل ایمان کو رسول کریم ﷺ کے گھرانے کے بارے میں کیا آداب سکھائے گئے ہیں؟
- (xxxix) اسلام میں حصول علم کی اہمیت بیان کریں۔ رسول کریم ﷺ نے علم میں اضافے کے لئے کونسی دعا فرمائی؟
- (xxxx) زکوٰۃ ادا کرنے والوں کو قرآن نے کیا وعید سنائی ہے؟
- (xxxxi) رسول پاک ﷺ کے لئے نکاح کے کیا خصوصی ضوابط بیان کیے گئے ہیں؟

اہم سوالات برائے حصہ ”ج“ (تفصیلی جواب کے سوالات)

سوال نمبر ۱: عبارات کا ترجمہ کیجئے۔

- (i) وَاعْلَمُوا أَنَّمَا أَمْوَالُكُمْ وَأَوْلَادُكُمْ فِتْنَةٌ ۚ وَاللَّهُ عِنْدَهُ أَجْرٌ عَظِيمٌ۔
- (ii) وَاعْلَمُوا أَنَّ اللَّهَ يَحُولُ بَيْنَ الْمَرْءِ وَقَلْبِهِ۔
- (iii) إِنَّ شَرَّ الدَّوَابِّ عِنْدَ اللَّهِ الصُّمُّ الْبُكْمُ الَّذِينَ لَا يَعْقِلُونَ۔
- (iv) وَقَرْنَ فِي بُيُوتِكُنَّ وَلَا تَبَرَّجْنَ تَبَرُّجَ الْجَاهِلِيَّةِ الْأُولَى۔
- (v) مَا جَعَلَ اللَّهُ لِرَجُلٍ مِنْ قَلْبَيْنِ فِي حَوْفِهِ۔
- (vi) فَمِنْهُمْ مَنْ قَضَىٰ نَحْبَهُ وَمِنْهُمْ مَنْ يَنْتَظِرُ۔
- (vii) عَسَى اللَّهُ أَنْ يَجْعَلَ بَيْنَكُمْ وَبَيْنَ الَّذِينَ عَادَ يُمْ مِنْهُمْ مَوْدَّةً ۚ وَاللَّهُ قَدِيرٌ ۚ وَاللَّهُ غَفُورٌ رَحِيمٌ۔
- (viii) لَقَدْ كَانَ لَكُمْ فِيهِمْ أُسْوَةٌ حَسَنَةٌ لِّمَن كَانَ يَرْجُو اللَّهَ وَالْيَوْمَ الْآخِرَ وَمَن يَتَوَلَّ فَإِنَّ اللَّهَ هُوَ الْغَنِيُّ الْحَمِيدُ۔
- (ix) يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَتَوَلَّوْا قَوْمًا غَضِبَ اللَّهُ عَلَيْهِمْ قَدْ يَئِسُوا مِنَ الْآخِرَةِ كَمَا يَئِسَ الْكُفَّارُ مِنْ أَصْحَابِ الْقُبُورِ۔
- (x) وَمَا رَمَيْتَ إِذْ رَمَيْتَ وَلَكِنَّ اللَّهَ رَمَىٰ ۚ
- (xi) يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا لَقِيتُمُ الَّذِينَ كَفَرُوا زَحْفًا فَلَا تُولُوهُمُ الْآدْبَارَ ۚ
- (xii) إِنَّ يَتَّقُواكُمْ يَكُونُوا لَكُمْ أَعْدَاءً وَيَسْطُوا إِلَيْكُمْ أَيْدِيَهُمْ وَأَلْسِنَتُهُمْ بِالسُّوءِ وَوَدُّوا لَوْ تَكْفُرُونَ ۚ
- (xiii) هُوَ الَّذِي آتَاكَ بِنَصْرِهِ وَبِالْمُؤْمِنِينَ ۚ وَالْأَفْ بَيْنَ قُلُوبِهِمْ ۚ لَوْ أَنفَقْتَ مَا فِي الْأَرْضِ جَمِيعًا مَا أَلْفَ بَيْنَ قُلُوبِهِمْ ۚ وَلَكِنَّ اللَّهَ أَلْفَ بَيْنَهُمْ ۚ
- (xiv) وَالَّذِينَ آمَنُوا وَهَاجَرُوا وَجْهَهُدُوا فِي سَبِيلِ اللَّهِ وَالَّذِينَ آوَوْا وَنَصَرُوا أُولَٰئِكَ هُمُ الْمُتَوَمِّنُونَ حَقًّا۔
- (xv) وَمَا كَانَ لِمُؤْمِنٍ وَلَا مُؤْمِنَةٍ إِذَا قَضَى اللَّهُ وَرَسُولُهُ أَمْرًا أَنْ يَكُونَ لَهُمُ الْخِيَرَةُ مِنْ أَمْرِهِمْ ۚ
- (xvi) وَأَطِيعُوا اللَّهَ وَرَسُولَهُ وَلَا تَنَازَعُوا فَتَفْشَلُوا وَتَذْهَبَ رِيْعُكُمْ وَاصْبِرُوا ۚ إِنَّ اللَّهَ مَعَ الصَّابِرِينَ ۝



سوال نمبر ۱۸: احادیث مبارکہ کا ترجمہ اور تشریح کیجئے۔

- (i) مَنْ صَلَّى عَلَىٰ مَرَّةٍ فَفَتَحَ اللَّهُ لَهُ، أَبَاً مِّنَ الْعَافِيَةِ
- (ii) إِنَّ أَكْمَلَ الْمُؤْمِنِينَ إِيمَانًا أَحْسَنُهُمْ خُلُقًا۔
- (iii) الصَّلَاةُ عِمَادُ الدِّينِ۔ وَمَنْ أَقَامَهَا فَقَدْ أَقَامَ الدِّينَ وَمَنْ هَدَمَهَا فَقَدْ هَدَمَ الدِّينَ۔
- (iv) كُلُّكُمْ رَاعٍ وَكُلُّكُمْ مَسْئُولٌ عَنْ رَعِيَّتِهِ ۝
- (v) الرَّائِي وَالْمُرْتَشِي (كِلَاهُمَا) فِي النَّارِ۔
- (vi) خَيْرُ النَّاسِ مَنْ يَنْفَعُ النَّاسَ ۝
- (vii) مَنْ صَامَ رَمَضَانَ وَقَامَهُ إِيمَانًا وَاحْتِسَابًا غُفِرَ لَهُ مَا تَقَدَّمَ مِنْ ذَنْبِهِ ۝
- (viii) مَنْ اغْبَرَّتْ قَدَمَاهُ فِي سَبِيلِ اللَّهِ حَرَّمَ اللَّهُ عَلَى النَّارِ ۝
- (ix) مَنْ أَحَبَّ لِلَّهِ وَأَبْغَضَ لِلَّهِ وَأَعْطَى لِلَّهِ وَامْنَعَ لِلَّهِ فَقَدْ اسْتَكْمَلَ الْإِيمَانَ ۝
- (x) إِذَا قُلْتَ لِصَاحِبِكَ يَوْمَ الْجُمُعَةِ انْصَبْ وَلِإِمَامٍ يَخْطُبُ فَقَدْ لَعُوتَ ۝

سوال نمبر ۱۹ اور ۲۰ کے لئے اہم سوالات

- ۱۔ (الف) قرآن مجید کا مختصر تعارف بیان کرتے ہوئے فضائل قرآن پر نوٹ تحریر کیجئے۔ نیز قرآن پاک کی حفاظت کے بارے میں قرآن وحدیث کی روشنی میں بیان کریں۔
- (ب) اللہ تعالیٰ کی محبت اور اطاعت کو قرآن کریم کی روشنی میں بیان کریں۔
- ۲۔ (الف) قرآن وحدیث کی روشنی میں زکوٰۃ کا مفہوم، فرضیت، اہمیت اور مصارف بیان کیجئے۔
- (ب) قرآن کریم اور حدیث کی روشنی میں علم کی فضیلت بیان کریں۔
- ۳۔ (الف) عالمی زندگی سے کیا مراد ہے؟ خاندانی نظام کی اہمیت پر نوٹ تحریر کیجئے۔
- (ب) صبر و شکر کی اہمیت بیان کرتے ہوئے فوائد و ثمرات تحریر کیجئے۔
- ۴۔ (الف) زوجین کے حقوق و فرائض بیان کیجئے۔ یا اولاد کے حقوق و فرائض بیان کیجئے۔
- (ب) ہجرت و جہاد کے فوائد و ثمرات تحریر کیجئے نیز جہاد کا مفہوم بیان کرتے ہوئے اسکی اقسام تفصیل سے لکھیے۔

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## Preparation Paper 2017-2018

### MATHEMATICS – X

#### Important Questions for Section B & C

##### CHAPTER # 1 (Sets)

- Ex. 1.1 Q.# 6 & Example # 1 and 2  
Ex. 1.2 Q.# 9 to 20  
Ex. 1.3 Q.# 1 to 5  
Miscellaneous Exercise: Q.# 4, 7, 8, 9, 11(i, ii, iii), Q.#12

##### CHAPTER # 2 (System of Real Numbers, Exponents and Radicals)

- Ex. 2.7 Q.# 5 to 14, & Example # # 1 to 3  
Ex. 2.8 Q.# 2, 3, 4, 5, 6, 7, 8, 9, 10 & Example # # 2  
Miscellaneous Exercise: Q.# 8 to 11

##### CHAPTER # 3 (Logarithms)

- Ex. 3.6 Q.## 2, 3, 4, 5, 7, 9, 10, 11, 12, & Example # # 2  
Miscellaneous Exercise: Q.# 2, 4, 5, 7, 8, 9, 10

##### CHAPTER # 4 (Algebraic Expressions)

- Ex. 4.3 Q.# 2 to 5  
Ex. 4.4 Q.# 9 to 12  
Ex. 4.7 Q.# 1(i to iv), 2, 3, 4, 5  
Ex. 4.8 Q.# 2  
Ex. 4.9 Q.# 2, 3, 4, 5  
Ex. 4.10 Q.# 7, 8, 9  
Miscellaneous Exercise: Q.# 5, 6, 8, 9, 12

##### CHAPTER # 5 (Factorization, H.C.F., L.C.M., Simplification and Square Roots)

- Ex. 5.1 Q.# 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 24, 26, 27, 30  
Ex. 5.2 Q.# 1(ii, iii, iv, vi, vii, viii, ix), 2(i, ii, iii, iv, vii, viii, ix) & Example #, 1, 2, 3  
Ex. 5.3 Q.# 1(ii, iv, v, vi), 2(i, ii, iii), 3(i, ii, iii), 4(ii, iii, iv)  
Ex. 5.4 Q.# 1(ii, iii, v, vi), 2(iii, v, vi), 3(i, ii, iii, iv, vi) 4(i, ii, iii, iv)  
Ex. 5.5 Q.# 1 to 5, 7  
Ex. 5.6 Q.# 1 to 6  
Ex. 5.7 Q.# 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 & Example # # 1, 2  
Ex. 5.11 Q.# 2, 3, 5  
Ex. 5.14 Q.# 1 to 14

##### CHAPTER # 6 (Algebraic Sentences)

- Ex. 6.1 Q.# 2, 7, 8  
Ex. 6.2 Q.# 1, 2, 3, 4, 6, 8, 10 & Example # 2 and 3  
Ex. 6.3 Q.# 1, 2, 4, 6, 7, 8, 10 & Example # 1 and 2  
Ex. 6.4 Q.# 2, 4, 6, 7, 8, 10 & Example # 1



- Ex. 6.5 Q.# 1, 2, 3, 8, 9  
 Ex. 6.6 Q.# 9, 11, 12, 13, 14, 15, 16 & Example # 1 & 2  
 Ex. 6.8 Q.# 1 to 10 & Example # 1 & 2

CHAPTER # 7 (Matrices)

- Ex. 7.4 Q.# 4(e, f), 5(a, b, c), 6(i, ii, iii)  
 Ex. 7.5 Q.# 1, 2, 3, 4, 5, 6, 7, 8, 9, 10  
 Miscellaneous Exercise: Q # 4 and 5

CHAPTER # 8 (Elimination)

- Ex. 8.1 Q.# 1(i, ii, iii, iv, v), 2, 3, (ii), 4(i, ii, iii, iv) 5(i, ii), 7, 8

CHAPTER # 9 (Variations)

- Ex. 9.1 Q.# 3, 4, 5, 6, 7, 8, 9, 16, 17  
 Ex. 9.2 Q.# 1, 2, 3, 5, & Example # 4 and 5  
 Ex. 9.3 Q.# 1 to 7 & 9, 10, 12, 13  
 Miscellaneous Exercise: Q.# 7 (ii, iii), 11, 12, 13, 14

CHAPTER # 10 (Information Handling)

- Ex. 10.3 Q.# 6, 7, 8  
 Ex. 10.4 Q.# 4, 6, 9  
 Miscellaneous Exercise: Q.# 3, 4, 5, 6

CHAPTER # 11 (Fundamental Concepts of Geometry)

Only for MCQs

CHAPTER # 12 (Demonstrative Geometry)

- Important Theorems 1, 2, 3, 4, 5, 6, 7, 8, 9, 10  
 Theorem on Inequalities  
 Important Theorems 1, 1(a), 2, 7, 7(a)

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CHAPTER # 13 (Circle)

- Important Theorems 1, 2(b), 4, 5 and 6

CHAPTER # 14 (Practical Geometry)

- Ex. 14.4 Q.# 1(ii, iii), 2(ii), 3(i, ii, iii)  
 Ex. 14.5 Q.# 3, 4, 6, 7

CHAPTER # 15 (Trigonometry)

- Trigonometric Ratios  $45^\circ$ ,  $30^\circ$  &  $60^\circ$   
 Ex. 15.3 Q.# 1(i, ii, iv), 2(iv, v, vii, viii, ix, x), 3, & Example # 2, 3, 4  
 Ex. 15.4 Q.# 2(ii, vi, viii), 3(ii, vi)  
 Ex. 15.5 Q.# 1, 2, 3, 4, 5, 7, 8, 10  
 Determination of Fundamental Trigonometric identities  
 $\sin^2\theta + \cos^2\theta = 1$   
 $1 + \tan^2\theta = \sec^2\theta$   
 $1 + \cot^2\theta = \operatorname{cosec}^2\theta$

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### PHYSICS – X

#### CHAPTER # 1 (INTRODUCTION TO PHYSICS)

- Q.1. Define Physics and write the names of branches of Physics.  
Q.2. Define scientific method with steps.  
Q.3. Define Error. What are the different types of Error?  
Q.4. Write down the contribution of:  
(a) Yaqub-Al-Kindi (b) Ibn-Al Haitham (c) Dr. Abdul Qadeer Khan

#### CHAPTER # 2 (MEASUREMENT)

- Q.1. Define standard of:  
(a) Mass (b) Length (c) Time  
Q.2. Define:  
(a) Least count (b) Significant figure (c) Accuracy  
Q.3. Write down some derived quantities with their units and symbols.

#### CHAPTER # 3 (KINEMATICS OF LINEAR MOTION)

- Q.1. Difference between  
(a) Speed & Velocity. (b) Scalar quantity and Vector quantity  
Q.2. Define:  
(a) Kinematics (b) Mechanics (c) Dynamics  
Q.3. Derive the second and third equation of motion.

**Solved examples:** 38, 40, 41

**Important Problems:** 3.1, 3.3, 3.6, 3.9, 3.11, 3.12 3.13

#### CHAPTER # 4 (FORCE AND MOTION)

- Q.1. State law of Inertia. And prove  $F = ma$  by using Newton's law.  
Q.2. Define tension. Motion of two bodies connected with string (case I and II) find acceleration and tension.  
Q.3. What is Momentum? Also state law of Conservation of Momentum.  
Q.4. Define friction. Write down its expression and on what factors it depends?  
Q.5. Write down the different types of friction.

**Solved examples:** 4.2, 4.5

**Important Problems:** 4.2, 4.3, 4.5, 4.7

#### CHAPTER # 5 (VECTORS)

- Q.1. Explain the addition of vectors by head-to-tail rule.  
Q.2. Define subtraction of a vector. Explain it with one example.  
Q.3. Resolution of vector by Rectangular Component method.

**Solved examples:** 5.3, 5.4

**Important Problems:** 5.5, 5.6



**CHAPTER # 6 (EQUILIBRIUM)**

- Q.1. Define two like and unlike parallel forces.  
Q.2. Define Equilibrium? Write down its two conditions.  
Q.3. Write down the three states of equilibrium. Give example of each.

Solved examples: 6.6

Important Problems: 6.4, 6.5, 6.6

**CHAPTER # 7 (CIRCULAR MOTION AND GRAVITATION)**

- Q.1. Define centripetal acceleration. Derive the equation  $a_c = \frac{v^2}{r}$   
Q.2. Define centripetal force. Derive the equation  $F_c = \frac{mv^2}{r}$   
Q.3. What banking of a road? What is its advantages?  
Q.4. By using Newton's law of gravitation. calculate the mass of the earth.  
Q.5. Explain how value of "g" decreases with a change in the altitude.  
Q.6. Derive an expression for the orbital velocity of an artificial satellite.  
Q.7. How would the value of "g" and "G" be affected. If the mass of the earth becomes four times.  
Q.8. Write down difference between. "Centripetal force" and "Centrifugal force".

Important Problems: 7.3, 7.4, 7.6

**CHAPTER # 8 (WORK, POWER AND ENERGY)**

- Q.1. Define positive, negative and zero work done.  
Q.2. Derive the relation between power and velocity.  
Q.3. Define kinetic energy. Derive the relation  $K.E = \frac{1}{2}mv^2$ .  
Q.4. What do you know about the interconversion of kinetic and potential energy.

Important Problems: 8.2, 8.3, 8.7, 8.8

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**CHAPTER # 9 (SIMPLE MACHINE)**

- Q.1. Draw the following terms:  
(a) Effort (b) Load (c) Input  
(d) Output (e) Efficiency  
Q.2. Define lever. Find its mechanical advantage.  
Q.3. Determine the mechanical advantage of an Inclined plane.  
Q.4. Define wheel and axle. Find its mechanical advantage.

Solved example: 9.3, 9.6

Important Problems: 9.1, 9.5, 9.6

**CHAPTER # 10 (PROPERTIES OF MATTER)**

- Q.1. State Archimede's Principle and its applications.  
Q.2. Explain Hook's Law applied the Helical spring.  
Q.3. Define surface tension, viscosity, Buoyancy.

Q.4. Define the following terms:

- (a) Elasticity      (b) Stress      (c) Strain  
(d) Elastic Limit      (e) Yield point

Q.5. Define Young's modulus of Elasticity. Derive its equation.

Q.6. State and explain Pascal's law.

Solved examples: 10.3, 10.5

Important Problems: 10.4, 10.5, 10.7, 10.8

#### CHAPTER # 11 (HEAT)

Q.1. Linear and volumetric expansion of solid. Relation between coefficient of linear and volumetric expansion.  $\beta = 3\alpha$

Q.2. Define bimetallic strip. Write its application.

Q.3. State Boyles's law, and Charles's law. Derive General gas equation  $PV = nRT$ .

Q.4. State Law of Heat Exchange, Define Heat Capacity and Latent Heat.

Q.5. Define thermal conductivity. Derive its formula and write down the factors and units of thermal conductivity.

Q.6. Difference between:

- (a) Heat capacity and Specific heat capacity  
(b) Conduction and Convention

Solved example: 11.3, 11.8, 11.11

Important Problems: 11.1, 11.6 11.7, 11.9

#### CHAPTER # 12 (WAVES AND SOUND)

Q.1. Define the following:

- (a) Wave      (b) Wave motion      (c) Oscillation or Vibration  
(d) Oscillatory or Vibratory motion      (e) Periodic motion  
(f) Displacement      (g) Amplitude      (h) Time period  
(i) Frequency      (j) Wave length

Q.2. Define simple harmonic motion. Write down its conditions and give some examples.

Q.3. Prove that the motion of a body attached with a spring and placed on a smooth surface is simple harmonic motion.

Q.4. Write down the formula for the time period of simple pendulum and vibrating mass attached to the spring.

Q.5. Define simple pendulum. Prove that the motion of simple pendulum is S.H.M.

Q.6. (a) Define reflection of waves.

(b) What do you understand by interference of waves?

(c) What do you understand by constructive and destructive interference?

Q.7. Define interference of sound. Explain its two types.

Q.8. Define ultrasonic waves. Write down its characteristics and applications.

Q.9. Difference between:

- (a) Musical Sound and Noise  
(b) Transverse Waves and Longitudinal Waves

Important Problems: 12.3, 12.5, 12.6, 12.7, 12.8

#### CHAPTER # 13 (PROPAGATION AND REFLECTION OF LIGHT)

Q.1. Differentiate between.

- (a) Real and Virtual image.      (b) Concave Mirror and Convex Mirror.  
(c) Regular reflection and Irregular reflection.



- Q.2. Show by a ray-diagram, the formation of image by a plane mirror and write characteristics of the image.
- Q.3. Define the following terms:  
 (a) light (b) ray of light (c) beam of light (d) medium  
 (f) rarer medium (g) denser medium
- Q.4. Write down the construction and working of the pinhole camera.
- Q.5. Define the following terms:  
 (a) Mirror (b) Plane mirror (c) Incident ray  
 (d) Angle of incidence (e) Normal (f) Reflected ray  
 (g) Angle of reflection (h) Point of incidence (i) Centre of curvature  
 (j) Radius of curvature (k) Pole or vertex (l) Principle axis  
 (m) Focal length (n) Principle Focus or focus  
 (o) Aperture
- Q.6. Derive the mirror equation or mirror formula  $\frac{1}{f} = \frac{1}{p} + \frac{1}{q}$

Important Problems: 13.1, 13.4, 13.5, 13.6, 13.7

#### CHAPTER # 14 (REFRACTION OF LIGHT AND OPTICAL INSTRUMENTS)

- Q.1. Define Power of Lens, Critical Angle, Refractive Index.
- Q.2. Define Linear Magnification, Snell's Law, Refraction of Light.
- Q.3. Draw a ray diagram of a compound microscope and simple microscope and write its working and construction.
- Q.4. Define Total Internal Reflection of light with the help of ray diagram and write necessary condition for it.
- Q.5. Thin lens formula  $\frac{1}{f} = \frac{1}{p} + \frac{1}{q}$
- Q.6. Define the following terms:  
 (a) Incident ray (b) Refracted ray (c) Point of Incident  
 (d) Emergent ray (e) Angle of Emergent
- Q.7. Explain the defects of vision, their causes and how they can be corrected.
- Q.8. Differentiate between:  
 (a) Compound Microscope and Astronomical Telescope  
 (b) Reflection and Refraction

Solved example: 14.4, 14.6, 14.10

Important Problems: 14.2, 14.3, 14.4, 14.5, 14.7

#### CHAPTER # 15 (NATURE OF LIGHT AND ELETROMAGNETIC SPECTRUM)

- Q.1. Define Quantum Theory and Explain Dual nature of light.
- Q.2. Which waves are there in the spectrum of electromagnetic radiation and what are their frequency?
- Q.3. Difference between: Wave theory and Corpuscular theory

#### CHAPTER # 16 (ELECTRICITY)

- Q.1. What are the factors on which the capacity of a capacitor depends.
- Q.2. Define resistance and its unit. What are the factors on which it depends?
- Q.3. State ohm's law. Derive the equation  $V = IR$ .

Q.4. With the help of a circuit diagram, derive the expression  $\frac{1}{R_e} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \dots$  When resistors are connected in parallel.

Q.5. Find the relation between power, voltage and current.

Q.6. Difference between: Alternating current and Direct current.

**Solved example** 16.3, 16.6, 16.11, 16.14

**Important Problems:** 16.1, 16.3, 16.5, 16.6

### CHAPTER # 17 (MAGNETISM AND ELECTROMAGNETISM)

Q.1. Draw a labelled diagram of an electric bell and write down its working.

Q.2. What is Galvanometer? How is it converted into Ammeter and Voltmeter?

Q.3. Define the following terms:

(a) Magnetic poles

(b) Magnetic force

(c) Magnetic field

(d) Magnetism

Q.4. Explain the different methods of making magnet.

Q.5. What is a solenoid? What do you understand by magnetic field due to a coil or solenoid?

Q.6. Explain the direction of the force experienced by the current carrying conductor in a uniform magnetic field.

Q.7. Write down the construction and working of simple electric motor.

### CHAPTER # 18 (ELECTRONICS)

Q.1. Define Doping and Rectifier.

Q.2. What is Radar? Write three uses of Radar.

Q.3. Write down the construction of transistor and describe its function as an amplifier or describe two types of transistor with the help of a diagram and two advantages.

Q.4. How can a  $p-n$  junction diode be used as a half wave and full wave rectifier?

Q.5. Write down the advantage and uses of transistors.

Q.6. What is an Amplifier? How can a transistor act as an amplifier and a switching device?

Q.7. Differentiate between:

(a)  $p$ -type substance and  $n$ -type substance

(b) Forward biased and Reverse biased

### CHAPTER # 19 (NUCLEAR PHYSICS)

Q.1. Define Half Life of Radioactive Elements, Radioactivity, Nuclear Reactor, Chain Reaction

Q.2. Define nuclear fission with the help of equation.

Q.3. Differentiate between Fission & Fusion reaction.

Q.4. Define Isotopes with its uses.

**Important Problems:** 19.2, 19.3, 19.4, 19.5



# آدم جی کو چنگ سینٹر

تیاری پیپر برائے امتحانات ۲۰۱۸-۲۰۱۷

اردو (لازمی)۔ جماعت دہم

اہم سوالات برائے حصہ ب (مختصر جواب کے سوالات)

اہم سوالات برائے سوال نمبر ۲۔

- (i) بوڑھا اپنے ماضی پر کیوں افسوس کر رہا تھا؟
- (ii) آنکھ کھلنے پر لڑکے نے کیا فیصلہ کیا؟
- (iii) سبق "گزر رہا ہوا زمانہ" میں مصنف نے قوم کے نوجوانوں کو کیا نصیحت کی ہے؟
- (iv) محمود غزنوی نے "تارہ گڑھ" کے قلعے پر حملہ کیوں نہیں کیا؟
- (v) محمود غزنوی کو اس کے ایمان محکم کا کیا صلہ ملا؟ نیز محمود غزنوی نے اپنے لشکر کے جانبازوں سے مخاطب ہو کر کیا کہا؟
- (vi) جب محمود غزنوی سوماتھ کابٹ توڑنے لگا تو بھاریوں نے اسے کیا کہا اور محمود نے انہیں کیا جواب دیا؟
- (vii) حسن مہمدی کون تھا؟ اور اس نے محمود غزنوی کی خدمت میں کیا عرض کی؟
- (viii) حضرت عائشہؓ نے حضور انور ﷺ کے اخلاق کے بارے میں کیا فرمایا تھا؟
- (ix) قرآن پاک نے رسول کریم ﷺ کے اخلاق کے متعلق کیا شہادت دی ہے؟
- (x) رسول اکرم ﷺ نے عورتوں کے مرتبے کو بلند کرنے کے لئے کیا ارشاد فرمایا؟
- (xi) رسول اکرم ﷺ کی سخاوت اور فیاضی کا کوئی واقعہ لکھیے۔
- (xii) ہبار بن الاسود کون تھا؟ اور رسول کریم ﷺ نے اس کے ساتھ کیا سلوک کیا؟
- (xiii) شخصہ کی درسگاہوں میں کون کون سے مضامین پڑھائے جاتے تھے؟
- (xiv) سندھ کے علم و فضل کے بارے میں مسلمانوں نے کیا لکھا ہے؟
- (xv) دنیا میں قومیت کی تشکیل کے دو بنیادی نظریے کون سے ہیں؟
- (xvi) مسلمانوں کی قومیت ایک نظریاتی قومیت کیوں ہے؟
- (xvii) پاکستان میں کون کونسی علاقائی زبانیں بولی جاتی ہیں؟ نیز علاقائی زبان کی موجودگی میں قومی زبان کی کیا اہمیت ہے؟
- (xviii) بپینے نے خاں صاحب پر ڈگری کیوں جاری کروائی؟
- (xix) علیم نے غریب خاندان کی کس طرح مدد کی؟ اور بپینے کے ظلم و ستم سے مظلوم خاندان کو نجات دلا کر علیم نے کیا محسوس کیا؟
- (xx) توصیف نے خواب میں کیا دیکھا؟ توصیف کو غریب عورت کے دکھ کا احساس کب ہوا؟
- (xxi) توصیف نے اپنے سسرال والوں کا دل کس طرح جیتا؟
- (xxii) بستی کون تھا؟ اس نے شاہی خاندان کے افراد کی کس طرح مدد کی؟
- (xxiii) کلثوم زبانی بیگم کے رخصت ہوتے وقت بادشاہ نے کیا دعا مانگی؟
- (xxiv) خواب نور محل نے خواب میں کیا دیکھا؟
- (xxv) کم نظروگ اکثر سرسید احمد خان پر تنقید کیوں کرتے رہتے تھے؟
- (xxvi) زبیر کون تھا؟ اور اس نے کیا جرم کیا تھا؟
- (xxvii) عبداللہ کو یہ یقین کیوں تھا کہ زبیر کو پچاسی نہیں دی جاسکتی؟
- (xxviii) چلین میں اردو زبان کی مقبولیت کا اندازہ کن باتوں سے لگایا جاسکتا ہے؟
- (xxix) سرسید احمد خان کی زندگی سے ہمیں کیا سبق ملتا ہے؟ نیز سرسید احمد خان نے اسلام کے لئے کیا بے نظیر خدمات انجام دیں؟

- (xxx) سرسید احمد خان کی زندہ دلی کا کوئی ایک واقعہ بیان کریں۔  
 (xxxi) مولوی نذیر احمد نے اپنے بیٹے بشیر احمد کو خط میں کیا نصیحت کی ہے؟  
 (xxxii) بائبل کی زندگی سے متعلق آپ کا کیا خیال ہے؟  
 (xxxiii) کیا معاشرے کا بگاڑ ہمارے انفرادی عمل سے رک جائے گا؟ چند جملوں میں لکھیے۔  
 (xxxiv) بستی کو خوب صورت اور خوشحال بنانے کے لیے خواتین نے کس طرح محنت کی؟  
 (xxxv) اللہ تعالیٰ کس قوم کی حالت بدلتا ہے؟  
 (xxxvi) حضرت شاہ ولی اللہؒ کی تحریک کے اہم مقاصد تحریر کیجئے۔  
 (xxxvii) صحافت کا پیشہ کس طرح خدمتِ خلق سے عبارت ہے؟

مرکزی خیال یا خلاصہ کے لئے اہم اسباق برائے سوال نمبر ۳۔

پہلا قدم شرط ہے، گنجی ہمدردی، سونما تھ کی فتح، حضور اکرم ﷺ کے اخلاق، نظریہ پاکستان، توصیف کا خواب، بہت بہادر شاہ، قرطبہ کا قاضی

مرکزی خیال یا خلاصہ کے لئے اہم منظومات برائے سوال نمبر ۴۔

ہنس نامہ، برسات، جنگ یرموک کا ایک واقعہ، محنت اپنی آن، صبح کا سماں، وہ بیویں میں رحمت لقب پانے والا، صحرا کی دعا

تشریح کے لئے اہم اشعار برائے سوال نمبر ۵۔

- |        |                                                           |                                                      |
|--------|-----------------------------------------------------------|------------------------------------------------------|
| (i)    | دل ناداں تجھے ہوا کیا ہے                                  | آخر اس درد کی دوا کیا ہے                             |
| (ii)   | ساقیا! یاں لگ رہا ہے چل چلاؤ                              | جب تک بس چل سکے، ساغر چلے                            |
| (iii)  | بارے دنیا میں رہو غم زدہ یا شاد رہو                       | ایسا کچھ کر کے چلو پاں کہ بہت یاد رہو                |
| (iv)   | عشق پیچے کی طرح حسن گرفتاری ہے                            | لطف کیا سرو کی مانند گراؤ اور ہو                     |
| (v)    | جلے جاتے ہیں بڑھ بڑھ کر، مٹے جاتے ہیں مگر مگر             | حضورؐ پر وازوں کی نادانی نہیں جاتی                   |
| (vi)   | اک نیا درد جنم لیتا ہے                                    | اک تہذیب فنا ہوتی ہے                                 |
| (vii)  | بر بات میں انہیں کی خوشی کا رہا خیال                      | ہر کام سے غرض ہے انہیں کی رضا مجھے                   |
| (viii) | دنہی حال کی جب ہمیں اپنے خبر رہے دیکھتے اوروں کے عیب دہنر | پڑی اپنی برائیوں پر جو نظر تو نگاہ میں کوئی برادر ہا |
| (ix)   | مسلم ہے تجھی کو حکمرانی                                   | کہ تیری سلطنت ہے جاودانی                             |
| (x)    | زمین و آسمان کا نور ہے تو                                 | مگر خود ناظر و منظور ہے تو                           |
| (xi)   | وہ چاہے تو عزت، وہ چاہے تو ذلت                            | جسے جو ملا ہے، اسی سے ملا ہے                         |
| (xii)  | دیکھی نہیں کسی نے اگر شانِ مصطفیٰ ﷺ                       | دیکھے کہ جبرئیلؑ ہے دربانِ مصطفیٰ ﷺ                  |

اہم خطوط اور مراسلے برائے سوال نمبر ۶۔

- (i) اپنے دوست کو خط لکھیے جس میں پاکستان کے موجودہ حالات میں قومی خدمت کی ضرورت و اہمیت بیان کیجئے۔  
 (ii) اپنے دوست کو خط لکھیے جس میں کسی ایسی کتاب کا تذکرہ ہو جسے آپ نے پڑھا اور پسند کیا۔  
 (iii) اپنے چھوٹے بھائی کو خط لکھیے اور اس کو تعلیم کی اہمیت سمجھاتے ہوئے بتائیے کہ امتحان کی تیاری کس طرح کرنی چاہیے۔  
 (iv) کسی اخبار کے مدیر کو مراسلہ لکھیے جس میں مرکزوں کی ٹوٹ پھوٹ اور ٹریفک کی بدانتظامی سے متعلق مسائل کی جانب توجہ مبذول کرائیے۔  
 (v) کسی اخبار کے مدیر کو مراسلہ تحریر کیجئے جس میں پاکستان میں بجلی، گیس کی کمی کے حوالے سے تشویش کا اظہار کرتے ہوئے توانائی کے بحران کے خاتمے کے لئے تجاویز دیجئے۔  
 (vi) کسی اخبار کے مدیر کو مراسلہ تحریر کیجئے جس میں پاکستان میں بڑھتی ہوئی دہشت گردی پر تشویش کا اظہار کرتے ہوئے مسئلے کے حل کے لئے تجاویز دیجئے۔





- (xv) پھر اندھیرا اتا ہے کہ ہر تاریک گوشے کو شمع کی ضرورت ہے۔  
 (xvi) ان لائق و دوق میدانوں کو پلیٹ سپیٹ کر دھنسا کر دھیر جا پہنچا۔  
 (xvii) ماں باپ دل ہی دل میں اس کی بلائیں لینے لگے۔  
 (xviii) چلو تو سارے زمانے کو ساتھ لیکر چلو  
 (xix) مشرق کا شہسوار ستاروں کی فوج کو شکست دے کر شعاع کا نیزہ ہاتھ میں لیے نکلا۔  
 (xx) حرکت میں برکت ہے۔  
 (xxi) درود یوار سے حسرت برتنی تھی۔  
 (xxii) دیکھا تو یہی دیکھا کہ فوج کا دل بادل چھا گیا ہے اور نشان محمودی الہرار ہا ہے۔  
 (xxiii) قصر پاکستان کی بنیاد میں پہلی اینٹ اسی پیر مرد نے رکھی۔  
 (xxiv) ہنرمند انسان اللہ کا دوست ہے۔  
 (xxv) معاقلہ و تعظیم جس طرح احباب میں رسم ہے وہ صورت ملاقات کی ہے۔  
 (xxvi) تحقیق اور اجتہاد میں جو جمود پیدا ہو گیا تھا اُسے توڑا۔  
 (xxvii) لیاقت عجب چیز ہے۔ ساری عمر آدمی کو مسرت دینے والی چیز، یسر اور دونوں میں لیاقت ہے۔

تشریح کے لئے اہم بند برائے سوال نمبر ۹۔

- (i) جواب شکوہ (تمام بند) (ii) صبح کا سماں (تمام بند) (iii) وہ نبیوں میں رحمت لقب پانے والا (تمام بند)

اہم مضامین برائے سوال نمبر ۱۰۔

- (i) سائنس رحمت بھی زحمت بھی / درود و جدید کی سہولیات اور ان کے نقصانات  
 (ii) اسلام کی برکتیں  
 (iii) میڈیا آزاد نسل برباد  
 (iv) گلاب خانوں کی اہمیت و افادیت  
 (v) ضرورت ایمان کی ماں ہے  
 (vi) میری زندگی کا ناقابل فراموش واقعہ / ایک افسوس ناک واقعہ  
 (vii) میرا پسندیدہ مشغلہ  
 (viii) خدمتِ خلق عین عبادت ہے  
 (ix) محنت زندہ قوموں کی ہے پہچان / محنت میں عظمت  
 (x) قومی اتحاد  
 (xi) ایک تفریح سفر کی روداد / کسی تاریخی مقام کی سیر  
 (xii) عمل سے زندگی بنتی ہے جنت بھی جہنم بھی / محض آرزوؤں سے تقدیر نہیں بدلتی



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

BOTANY – XI

**Important Information:****Information for MCQs (Section - A)**

It is not possible to do all important MCQs but for the Preparation of MCQs read your syllabus book, Attempt all MCQs of last 25 years and do preparation of all MCQs which are provided by your teacher.

**CHAPTER NO:4 (The Cell)****Short Questions/Answers**

Techniques to isolate component of cell, Cell Wall, Eukaryotes and Prokaryotes, Cytoskeleton. Plastids, Mitochondria . lysosomal storage disease , Nucleus, Endoplasmic reticulum.

**CHAPTER NO:5 (Variety of Life)****Short Questions/Answers**

Define species, Nomenclatures , Write down the classification of Wheat, Viroids and Prions, Hepatitis., AIDS

**Detail Questions/Answers**

Bases of classification, Classification of virus (Eight Groups)

**CHAPTER NO:6 (The Kingdom Prokaryote)****Short Questions/Answers**

Diagram of Bacilli Bacteria, Types of Bacteria (Shapes) Nutrition in Bacteria, Importance of bacteria, Diagram Nostoc Morphology, Reproduction in Nostoc.

**CHAPTER NO:7 (The Kingdom protista (Protista))****Short Questions/Answers**

Life Cycle and Importance of Phytophthora infestans.

**Detail Questions/Answers**

Life Cycle of Ulva.

**CHAPTER NO:8 (The Kingdom Fungi)****Short Questions/Answers**

Importance of Fungi, Lichens, Yeast, Deuteromycota.

**Detail Questions/Answers**

Life Cycle of Basidiomycota.

**CHAPTER NO:9 (The Kingdom Plantae)****Short Questions/Answers**

Draw V.S of Selaginella trobilus, Draw L.S of Male/Female, Cone of Pinus, Rhynia

Evolution of leaves and seed. Economics importance of family Solanaceae and Poaceae.

**Detail Questions/Answers**

Adaptations to land habitat, Life Cycle of fern Family Solanaceae , Rosaceae.

**CHAPTER NO:11 (The Bioenergetics)**

**Short Questions/Answers**

Role of Water, Light and  $\text{CO}_2$  in Photosynthesis, Four events during light dependent reaction, Pyramid of energy.

**Detail Questions/Answers**

Kreb's Cycle, Light dependent reactions of Photosynthesis, Fixation of  $\text{CO}_2$  during Benson and Calvin Cycle.

**CHAPTER NO:12 (The Nutrition)**

**Short Questions/Answers**

Role and deficiency symptoms of Phosphorous and Magnesium, Carnivorous Plant.

**CHAPTER NO:14 (Transport)**

**Short Questions/Answers**

Facilitated diffusions, Diagram Pathway for water uptake by the root up to xylem, mechanism opening and closing of stomata,

**Detail Questions/Answers**

Water minerals uptake by root,



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### XI - Chemistry

#### CHAPTER NO. 1

#### (Introduction to Fundamental Concepts of Chemistry) :

- Differentiate between:  
\* Systematic error and Random error      \* Significant figures and Exponential notation
- Calculate mass, number of moles, number of molecules and volume of  $\text{CO}_2$  gas produce at S.T.P by complete combustion of 0.01 g graphite.  $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
- An organic compound contains carbon, hydrogen and oxygen. 0.94g of this compound gives 1.32 g of  $\text{CO}_2$  and 0.568g of  $\text{H}_2\text{O}$ . Its molecular mass was found to be 180. Determine its molecular formula.
- 1.0 g of an organic substance was burnt in excess of air to yield 3.03 g  $\text{CO}_2$  and 1.55 g of  $\text{H}_2\text{O}$ . If the molecular mass of the compound is 58, find its molecular formula?
- The atomic weight of gold is 197.2 a.m.u  
(i) What is the weight of one gold atom  
(ii) How many atoms are there in 3.29 g of Au  
(iii) How many gram atoms are in 7.5 g of Au.
- Reduce the following values into four, three and two significant figures; (i) 9.8576 (ii) 30.925
- $\text{NaHCO}_3$  is obtained in ammonia-solvey process when  $\text{NH}_3$  and  $\text{CO}_2$  gases are passes into aqueous solution NaCl.  
$$\text{NH}_3 + \text{CO}_2 + \text{H}_2\text{O} + \text{NaCl} \longrightarrow \text{NaHCO}_3 + \text{NH}_4\text{Cl}$$
  
How many  $\text{dm}^3$  of  $\text{NH}_3$  are required to produce 212 g of  $\text{NaHCO}_3$ .
- Calculate the volume of oxygen at S.T.P that may be obtained by complete decomposition of 51.3 g  $\text{KClO}_3$  on heating in presence of  $\text{MnO}_2$  as a catalyst.  
$$2\text{KClO}_3 \xrightarrow[\text{heat}]{\text{MnO}_2} 2\text{KCl} + 3\text{O}_2$$
- 54 gm of dinitrogen pentaoxide ( $\text{N}_2\text{O}_5$ ) is decomposed on heating as  
$$2\text{N}_2\text{O}_5 \longrightarrow 4\text{NO}_2 + \text{O}_2$$
. Find the volume of  $\text{NO}_2$  and  $\text{O}_2$  at S.T.P
- Express the following as power of 10:  
(i) 5000 (ii) 53.24 (iii) 0.00005 (iv) 54321
- Calculate the number number of moles and number of molecules present in 9.0 g of  $\text{C}_6\text{H}_{12}\text{O}_6$ .
- You are provided with 6.0 g C and 100 g of  $\text{O}_2$ . Calculate the amount of  $\text{CO}_2$  prepared by reacting them. Which of them is the limiting reactant.
- How many significant figure are there in 732.020? Convert it to three and two significant figure.

#### CHAPTER NO. 2 (Three States of Matter):

- Write main postulates of Kinetic Molecular Theory of gases. How it explain the following properties of gases: \* Diffusibility \* Compressibility \* Expansion
- State and explain Boyle's law, Charle's law and Graham's law of diffusion.
- Derive General gas equation. Values and units of gas constant 'R'.
- Give a brief account on: \* Viscosity \* Surface tension \* Vapour Pressure \* Types of Crystal
- Differentiate between:  
\* Isomorphism and Polymorphism      \* Ideal gases and Real gases
- Give reason why?  
\* Evaporation is a cooling process.      \* Viscosity is decreased by increased in temperature.  
\* Liquid rises in capillary tube.      \* Among three states of matter gases diffuses fastest.  
\* NaCl and MgO are isomorph.      \* Glycerine is distilled at reduced pressure.  
\* Pressure cooker is used for rapid cooking.      \* A falling drop of a liquid is spherical.
- Why real gases deviate from the ideal behaviour? And give condition for ideal behaviour of real gases.
- A 5.0 liter vessel contains 2.0 gm hydrogen and 28.0 gm of nitrogen at  $27^\circ\text{C}$ . Find the total pressure of the mixture of gases.
- The volume of oxygen gas collected over water at  $24^\circ\text{C}$  and 672 mm Hg pressure is 128 ml. Calculate the mass (in gm of  $\text{O}_2$  gas obtained). The vapour pressure of water at  $24^\circ\text{C}$  is 22mm.
- A 100  $\text{cm}^3$  gas, cylinder filled with chlorine under 160 torr pressure is connected by stop-cock with another cylinder of 400  $\text{cm}^3$  filled with nitrogen under pressure of 200 torr. What will be the total pressure when stop-cock is opened?
- Correct the following statements, giving the names of the respective laws or principles:  
(i) The volume of a gas at  $27^\circ\text{C}$  doubles at  $54^\circ\text{C}$ .  
(ii)  $\text{H}_2$  gas (mol. Mass=2) takes more time to diffuse than  $\text{O}_2$  gas (mol. Mass=32)



**CHAPTER NO. 3 (Atomic Structure):**

- What is Radioactivity? Discuss properties of each type of radioactive ray.
- What do you understand by electronic configuration? Write electronic configuration of the elements having atomic number:  
\* 9    \* 13    \* 19    \* 24    \* 29    \* 36    \* 55
- Differentiate between the following:
  - Lyman and Balmer series
  - Cathode and Canal rays
  - Continuous spectrum and line spectrum
  - Electronegativity and Electron Affinity
  - Natural radioactivity and Artificial radioactivity
- Write a note on (a) Quantum Numbers
- What happens when a high voltage current is applied between two electrodes and separated by a gas at a pressure of 0.001 mm of Hg.

**OR**

Describe Crook's tube experiment about the discovery of cathode particles write down characteristics of cathode particles.

- What are the weakness of Rutherford's atomic model?
- Differentiate between the following:
  - Principle quantum number and Azimuthal quantum number
  - Cathode rays and X-rays.
- What rules and principles are violated in the following electronic configuration:
  - $1S^2 2S^3$
  - $1S^2 2P^2$
  - $1S^2 2S^2 2P^6 3S^2 3P^6 3d^4 4S^2$
  - $1S^2 2S^2 2P^6 3S^2 3P_x^2 3p_y 3p_z$
- Starting from  $K.E = 1/2 mv^2$  and  $P.E = Ze^2/r$  derive an expression for energy of an electron in  $n^{th}$  orbit.

**OR**

Derive expressions of Radius, Energy, frequency and wave number of electron which revolves in an orbit " $n$ ".

- Make the correct sequence of the orbitals for the electronic configuration according to  $(n+1)$  rule 4p, 4s, 3d, 5s, 5p.
- Calculate the wave number of radiation emitted in Lyman series of hydrogen atom when electron jumps from  $2^{nd}$  to  $1^{st}$  orbit ( $R_H = 109678 \text{ cm}^{-1}$ )
- What are the shape of orbitals for which  $l = 0$  and  $1$ ?
- What is the relationship between X-Rays and Atomic No.?

**CHAPTER NO. 4 (Chemical Bonding):**

- Differentiate between the following:
  - \* Ionic bond and Covalent bond    \* Polar bond and non-polar bond
  - \* Bonded pair and lone pair    \* Atomic orbitals and Molecular orbitals
- What is a chemical bond? How ionic bond is formed in NaCl with respect to energy changes.
- Give scientific reasons:
  - Why H-Cl has polar bond while Cl-Cl is non-polar bond?
  - Why a polar bond is stronger than non-polar bond?
  - Why  $\text{CO}_2$  is polar molecule but it has zero dipole moment?
- Explain the geometry of  $\text{BeCl}_2$  and  $\text{H}_2\text{O}$  molecules on the basis of hybridization and electron pair repulsion theory.
- What do you mean by hybridization of atomic orbital?
- Differentiate between:
  - Bonding molecular orbital and Anti bonding molecular orbital
  - Sigma bond and Pi bond.
- Give the main features of electron pair repulsion theory and explain the shape of the following molecules:
  - $\text{CH}_4$
  - $\text{H}_2\text{O}$
  - $\text{BF}_3$
  - $\text{BeCl}_2$
  - $\text{NH}_3$
- Explain dipole moment, predict the dipole moment of  $\text{CO}_2$  molecule.
- Define orbital hybridization. Describe  $\text{SP}^3$  hybridization.
- Differentiate any two of the following:
  - $\text{SP}^2$  hybridization and  $\text{SP}^3$  hybridization
  - Sigma bond and Pi bond
  - Polar covalent bond and Non polar
- Define dipole moment, which of the following molecules possesses dipole moment.
  - $\text{PCl}_3$
  - $\text{CS}_2$
  - $\text{H}_2\text{S}$
  - $\text{CCl}_4$
- What is coordinate covalent bond? Explain the formation of  $\text{POCl}_3$  molecule.
- Give scientific reasons for any three of the following:
  - Graphite is very soft whereas diamond is very hard.
  - Phosphorous combine with Chlorine to form  $\text{PCl}_3$  but it does not form  $\text{PI}_3$  with iodine.
  - The boiling point of a liquid remains constant although the heat is constantly supplied to the liquid.



**CHAPTER NO. 5 (Energetics of Chemical Reaction):**

1. Explain Pressure-Volume work on the basis of the First law of Thermodynamics.
2. Differentiate between:
  - (i) System and Surroundings
  - (ii) Intensive properties and Extensive properties
  - (iii) Exothermic and Endothermic reactions
3. State and explain First law of Thermodynamics and show that:  $\Delta H = \Delta E + P\Delta V$
4. Define heat of formation. Calculate the heat of formation of  $C_2H_2$  from carbon and hydrogen with the help of following data:
 

(i)	$2C + H_2$	-----	$C_2H_2$	$\Delta H = ?$
(ii)	$C_2H_2 + 5/2 O_2$	-----	$2CO_2 + H_2O$	$\Delta H = -310 \text{ k cal/mole}$
(iii)	$C + O_2$	-----	$CO_2$	$\Delta H = -94 \text{ K cal/mole}$
(iv)	$H_2 + 1/2 O_2$	-----	$H_2O$	$\Delta H = -68.32 \text{ K cal/mole}$
5. Calculate the heat of formation of  $N_2O_4$  from the following data:
 

(i)	$2NO_2$	$\longrightarrow$	$N_2O_4$	$\Delta H = ?$
(ii)	$1/2 N_2$	$\longrightarrow$	$N O_2$	$\Delta H = +33.95 \text{ KJ/mole}$
(iii)	$N_2 + 2O_2$	$\longrightarrow$	$N_2O_4$	$\Delta H = +9.3 \text{ KJ/mole}$
6. Determine  $\Delta H$  for the reaction:
 

$2Na + H_2O + 1/2 O_2$	-----	$2NaOH$	$\Delta H = ?$
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 From the following data:
 

$Na + 1/4 O_2$	-----	$1/2 Na_2O$	$\Delta H = -50 \text{ k.cal}$
$Na_2O + H_2O$	-----	$2NaOH$	$\Delta H = -56 \text{ k.cal}$
7. A system absorbs 200J of heat from surroundings and does 120J of work on the surrounding by expansion. Find the internal energy of the system.
8. When 5400J of heat is added to the system of a gas at a constant pressure, its internal energy increase by 1000J. Calculate change in volume of system.
9. 3600kJ heat is entered in a gas cylinder. Calculate the value of  $\Delta E$ :
  - (i) If the volume is kept constant
  - (ii) If the volume is not constant, work of -800kJ was performed by gas
  - (iii) If the gas is allowed to expand, the value of work is +5200kJ.
10. In certain process 700J heat are absorbed by a system, while 300J work is done on the system. What is the change in the internal energy of the process?
11. 600J of heat was given to a gas at  $1.01 \times 10^5 \text{ N/m}^2$  pressure. The internal energy was increased by 300J. Find the increase in volume.

**CHAPTER NO. 6 (Chemical Equilibrium):**

1. Differentiate between the following:
  - \* Reversible reactions and Irreversible reactions
  - \* Solubility and Solubility product
  - \*  $K_c$  and  $K_p$
2. State and explain Law of Mass action along with derivations of ' $K_c$ ' and ' $K_p$ '
3. State Le-chatelier's principle and discuss its industrial applications.
4. What is common ion effect? Give its application.
5. The solubility of  $BaSO_4$  is  $9.0 \times 10^{-3} \text{ g/dm}^3$ . Find the solubility product  $K_{sp}$ .
6. Three reactions of equilibrium have the values of  $K_c = 2.0 \times 10^{-5}$ , 0.013 and  $1.7 \times 10^{-10}$  which reaction give very little product and which goes to completion? Why?
7. Illustrate by calculation whether  $PbCrO_4$  would precipitate out if 100  $\text{cm}^3$  of  $2 \times 10^{-4} \text{ M Pb(NO}_3)_2$  solution is mixed with 300  $\text{cm}^3$  solution of  $K_2CrO_4$  concentration  $1.5 \times 10^{-8} \text{ M}$  ( $K_{sp} = 1.8 \times 10^{-14}$ )
8. State the law of mass action and derive  $K_c$  for the general reversible equilibrium reaction
 
$$aA + bB \rightleftharpoons cC + dD$$
9. Write down the equilibrium expression for the following reactions:
 

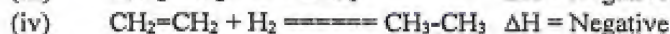
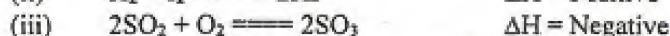
(i)	$2C + O_2$	=====	$2CO_2$
(ii)	$N_2 + 3H_2$	=====	$2NH_3$
(iii)	$CH_3COOH + C_2H_5OH$	=====	$CH_3COOC_2H_5 + H_2O$
10. At equilibrium, a vessel of 12  $\text{dm}^3$  a city contain 0.21 mole of  $PCl_5$ , 0.32 mole  $PCl_3$  and 0.32 mole of  $Cl_2$ . Calculate the value of  $K_c$  for the reaction:
 
$$PCl_5 \rightleftharpoons PCl_3 + Cl_2$$
11. Should  $AgCl$  precipitate from a solution prepared by mixing 400  $\text{cm}^3$  of 0.1 M  $NaCl$  and 600  $\text{cm}^3$  of 0.03 M  $AgNO_3$ ? ( $K_{sp}$  of  $AgCl = 1.6 \times 10^{-10} \text{ mole/dm}^3$ )
12. How  $K_c$  is used to predict the direction of reversible reaction.
13.  $K_c$  for a reaction is 0.0194 and the calculated ratio of the concentration of reactant and product is 0.0116. Predict the direction of reaction.
14. Predict the effect of change of temperature and pressure on the following equilibrium mixture;
 

(i)	$N_2 + 3H_2$	=====	$2NH_3 + \text{Heat}$
(ii)	$H_2 + I_2 + \text{Heat}$	=====	$2HI$
15. The equilibrium constant expression for a gaseous equilibrium:



$$K_c = \frac{[NO]^4 [H_2O]^6}{[NH_3]^4 [O_2]^5}$$

16. Consider the following equilibria and answer the questions given at the end:



\* What are the equilibrium constant expressions?

\* In which direction does the equilibrium change if the temperature is raised?

### CHAPTER NO. 7 (Solution and Electrolytes):

1. Write a note on:

(i) Neutralization (ii) Indicator (iii) Buffer Solution

2. Differentiate between the following:

\* Molar solution and molal solution

\* Hydration and Hydrolysis

\* Electrolysis and Electrode Potential

\* Valency and Oxidation Number

3. Define oxidation number and determine oxidation number of:

(i) N in  $NH_4NO_3$  (ii) O in  $OF_2$  (iii) P in  $PO_4^{3-}$  (iv) C in  $C_2H_2O_4$

(v) Cl in  $HClO_3$  (vi) O in  $KO_2$  (vii) S in  $Na_2S_2O_3$

(viii) Cl in  $Mg(ClO_4)_2$  (ix) Cr in  $Cr_2O_7^{2-}$  (x) Mn in  $KMnO_4$

4. Balance the following chemical equations by ion electron method:



5. What is electrode potential? Describe Standard Hydrogen Electrode (SHE). What is the potential assigned to it?

6. What is electrolysis? Discuss electrolysis of  $CuCl_2$ .

7. What is pH of  $10^{-4}$  molar HCl? Tell whether pH of  $10^{-4}$  molar  $CH_3COOH$  is less or more than that of  $10^{-4}$  HCl. Justify your answer.

8. Calculate pH of 0.004 M an and solution. If it is a strong acid which is 95% changed into ions in  $H_2O$ .

9. Write down the main points of Arrhenius theory of ionization.

10. Determine the mass of HCl required to prepare 400 ml of 0.85 m HCl solution.

11. What are buffer solutions, explain with suitable examples.

### CHAPTER NO. 8 (Chemical Kinetics):

1. Define following terms:

(i) Rate expression (ii) Rate constant (iii) Threshold energy

(iv) Energy of Activation. (v) Order of reaction

2. Give reasons:

(i) Why the energy of activation decrease with increase in temperature?

(ii) Why a negative catalyst decreases the rate of reaction?

(iii) Why rate of reaction is directly proportional to concentration of reactant?

(iv) Why rate of reaction becomes double for every 10K rise in temperature?

(v) Why powdered zinc react vigorously as compared to a piece of zinc metal?

3. Differentiate between:

\* Rate of reaction and Rate constant

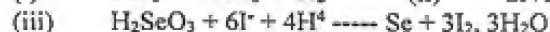
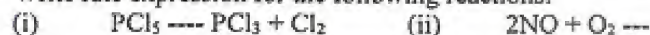
\* Rate constant and Specific rate constant

\* Promoters and Inhibitors

\* Threshold energy and Activation energy

4. Determine the initial rate of following reaction at  $33^\circ C$  while its rate constant is  $8.5 \times 10^{-5} \text{ dm}^3/\text{mole}/\text{sec}$ .  $2A \rightarrow P$  if initial concentration of A is  $0.01 \text{ mol}/\text{dm}^3$ .

5. Write rate expression for the following reactions:



6. For a chemical reaction  $A \rightleftharpoons B$ , the threshold energy of reaction is 31 kJ/mole. The average internal energy of A is 12 kJ/mole; calculate the activation energy of A.

7. Write the rate expression, find the value of rate constant and determine the order of reaction using the following data:

	A	B	Rate
(i)	0.1M	0.1M	$2 \times 10^{-3} \text{ MS}^{-1}$
(ii)	0.2M	0.1M	$8 \times 10^{-3} \text{ MS}^{-1}$
(iii)	0.1M	0.2M	$4 \times 10^{-3} \text{ MS}^{-1}$



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### COMPUTER SCIENCE – XI

#### Important Information:

Information for MCQs (Section – A)

It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 10 years and do preparation of all MCQ's which are provided by your teacher.

### Section B

#### CHAPTER #01

##### Short Q/A

1. Define Information Technology? Write its three uses.
2. *Why do the people call this world as Global Village?*
3. *Which device is used to convert printed or handwritten text documents, images, or a particular object into a digital file format? Name its types.*
4. What is the use of Optical Mark Reader (OMR)?
5. What is monochrome monitor? Name its types.
6. What is meant by RGB monitor? Name any three types.
7. How does an impact printer work? Give three examples of impact printers.
8. What is the basic use of Plotter? Name its types
9. Write any three Objectives of Operating System
10. Write any three Characteristics of Operating System
11. Which type of system software is used for converting instructions written in Computer
12. How are Utilities software beneficial for us? Name some types.
13. How does Cache (Cache memory) improve our system's performance?
14. What types of memory is required to save user data permanently? Give some examples.
15. What is Bit, Nibble, Byte and Word?

##### Long Q/A

1. What is an Operating System? Explain its Objectives and Functions.
2. What is a program? Define different types of programming languages
3. What are the two major types of Printers? Explain each type with an example.
4. What is secondary memory? Explain various secondary storage devices.
5. What are the different scanning input devices? Explain any one of them.

#### CHAPTER #02

##### Short Q/A

1. What is a Computer Network? Write its any two uses.
2. Name the component that is used to connect two dissimilar networks.
3. What is the best use of Switch in networking?
4. What is Network Operating Systems (NOS)? Name any two types
5. What is Networking Hardware? (Components of LAN)
6. What is the Internet? Write any three advantages
7. Write some advantages of e-mail
8. Write some disadvantages of e-mail
9. What is Web-Browser? Give some examples.

##### Long Q/A

1. Explain any three network components.(Bridge, Router, Gateway, switches)
2. Explain any three types of network topology.
3. What is Internet? Explain the role of ISP. (Internet Service Provider).

**CHAPTER # 03**

1. Draw and label simple Data Communications System
2. Name the Components of data communication system
3. What is Protocol? Name any three Functions of Protocol.
4. Define TCP/IP.
5. Define MODEM (Modulator- Demodulator)
6. Define ASCII coding scheme.
7. Define Bandwidth with its types
8. Draw OSI Reference Model

**Long Q/A**

1. What is Data Communication? Explain
2. What is Network protocol? Define its various types.
3. Explain various types of Directional Transmission Modes with diagram.
4. Explain any two unguided (wireless) communication channel
5. Explain OSI Model with diagram.

**CHAPTER # 04****Short Q/A**

1. What is the application of Computer in Education?
2. What is the application of Computer in Communication?

**CHAPTER # 05****Short Q/A**

1. Draw and label Block diagram of a Digital Computer
2. Define different types of buses in computer.
3. What is a computer register? Name its types.
4. Define two operations of STACK

**Long Q/A**

1. What is Register? Explain any two of them.
2. Define different types of Buses. (Address Bus, Data Bus, Control Bus)
3. What is CPU? Define its components.
4. What is Fetch-Cycle? Explain with diagram.

**CHAPTER # 06****Short Q/A**

1. How do you know that your system is infected with Computer Virus?
2. How do you protect your system from Virus attacks?
3. How do you identify that your system is infected with the Boot Sector Virus?

**Long Q/A**

1. What is a computer virus? Explain its different types.
2. What are the different types of threats we have to face on computer and how can we protect it?

**Differentiate Between**

1. System Software and Application Software
2. Impact and Non-impact printers
3. RAM and ROM
4. Analog signals and Digital signals
5. Synchronous Transmission and Asynchronous Transmission
6. Compiler and Interpreter
7. Primary Storage and Secondary Storage

**Abbreviations**

OMR	OCR	GUI	SVGA	CRT	BIOS
LAN	WAN	MAN	TCP/IP	ISO	CPU
MAR	PC	IR	SNA	FTP	WWW
MICR	IBM	LCD	LED		



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

ENGLISH – XI

### SECTION “A” (COMPULSORY) (MULTIPLE CHOICE QUESTIONS)

Note. Secure full marks through reading the literature i.e. Prose, Poems and Plays thoroughly.

### SECTION “B” (SHORT-ANSWER QUESTIONS)

#### Sub Section (I) INETERMEDIATE English BOOK I

- Q.1. What would have happened if there had been a panic on ‘Birkenhead’?
- Q.2. What did the Quaid-e-Azam tell about his people few days after he landed in Karachi?
- Q.3. Why does English have such a large vocabulary?
- Q.4. How does F. Sherwood Taylor define the term ‘Science’?
- Q.5. Differentiate between ‘scientific’ and ‘unscientific’ work.
- Q.6. Describe the behaviour of the soldiers on the ship ‘Birkenhead’?
- Q.7. What are the four contributions made by science to the welfare of society? Answer with reference to the lesson “Science and Society”.
- Q.8. Why was Manning certain of Charlton's guilt after peering closely into his face?
- Q.9. Why was there a roar of laughter when the author left the bank?
- Q.10. The author, Stephen Leacock, was a respected university teacher and a highly successful writer. Do you think this is a true story?
- Q.11. Why did the Congress leaders spend most of the Second World War in prison?
- Q.12. Why were the Baron and the Baroness angry with Amalie?
- Q.13. How successful has the United Nations Organization been so far in preventing local wars?
- Q.14. What is the function of the International Bank/WHO/UNESCO/UNICEF?
- Q.15. What is the designation of the Chief Officer of the United Nations? For how long and by whom is he appointed?
- Q.16. What did people decide on 23<sup>rd</sup> March 1940?
- Q.17. What, in your opinion, was the reason of the Quaid-e-Azam's sadness after independence?
- Q.18. Why does the writer apply the word “terrible” to the first year of Pakistan's history as an independent state?
- Q.19. Describe a heroic action that took place after the Birkenhead went down?
- Q.20. What are the limitations of science in regard to the service for the society?

#### Sub Section (II) SELECTIONS FROM ENGLISH VERSES

- Q.1. Why do people think that Lucy is a ‘living child’?
- Q.2. What news did the young soldier give to emperor Napoleon?
- Q.3. What penalties does the minstrel foresee for the man who has no love for his native land?
- Q.4. Throw light on the concluding lines of ‘The Deserted Village’?
- Q.5. Why did King John become jealous of the Abbot of Canterbury?
- Q.6. What is the idea presented in the poem “Under the Greenwood Tree”?
- Q.7. What, according to Sir Henry Wotton, is the most essential factor in a man's life that ensures his happiness?
- Q.8. What does Henry Wotton's happy man feel about, name, fame and needs of the society?
- Q.9. How did the villagers enjoy holidays before the village was deserted?
- Q.10. What were the three questions asked by King John?
- Q.11. What were the answers given by shepherd?
- Q.12. What is a ballad? Give an example of ballad from your book?
- Q.13. Who was Lucy? What happened to her on her way to the town?



- Q.14. What did Lucy's parents do when she did not return?  
 Q.15. What is the legend of Lucy?  
 Q.16. What inspired William Wordsworth to write the sonnet composed upon Westminster Bridge?  
 Q.17. What did Wordsworth feel as he witnessed the man-made beauty?  
 Q.18. What is the main idea behind the poem "Abou Ben Adhem"?  
 Q.19. Why did the messenger hold on to the horse's mane and keep his lips compressed when he stood before Napoleon?

### **Sub Section (III) TWO ONE ACT PLAYS**

- Q.1. Why did Albert challenge the Count of Monte Cristo to fight a duel?  
 Q.2. What is an 'Organized butchery' of young boys according to Mrs. Meldon?  
 Q.3. How could Professor Henry Corrie's invention revolutionize warfare?  
 Q.4. 'The Count of Morcerf was a villain through and through.' Comment.  
 Q.5. What was the cause of enmity between the two counts?  
 Q.6. Briefly describe the role played by Morrel or Beauchamp in the play.  
 Q.7. Why did the Countess of Morcerf visit the Count of Monte Cristo's house? What was the outcome of her visit?  
 Q.8. What is meant by "duel"? Define "second".  
 Q.9. What was fixed for Bois de Vincennes? Describe the happenings.  
 Q.10. How was the Count of Monte Cristo avenged?  
 Q.11. Do you think that the end of the play "The Count's Revenge" is justified? Give reasons.  
 Q.12. Does the physical appearance of Professor Henry Corrie depict his true nature?  
 Q.13. Who is Charlotte and what role does she play in the play "Progress"?  
 Q.14. What plans does Professor have for his invention?  
 Q.15. Who was Eddie and what happened to him?  
 Q.16. What did Mrs. Meldon learn about her son on his third death anniversary?  
 Q.17. What did Mrs. Meldon want her brother to do with his invention? And why?  
 Q.18. Do you think that Mrs. Meldon was justified in her action? Refute or Justify.  
 Q.19. How did the Count of Morcerf betray his country?  
 Q.20. What are the views of Professor Henry Corrie about women? Is he justified?

### **Sub Section (IV) GRAMMAR**

1. Correct the errors/omission of verbs, prepositions and articles (Practice, as directed in the class)
2. Memorize unfamiliar or new words or phrases (vocabularies) used in Prose, Poems and Plays for English to English meanings.
3. Pair of Words for sentences.

Which, Witch. Banned, Band. Missed, Mist. Plain, Plane. Mail, Male. Mind, Mined. Find, Fined. Weather, Whether. Father, Farther. Oh, Owe. Flower, Flour. Thrown, Throne. Principal, Principle. Where, Wear. Weight, Wait. Weak, Week. Heard, Herd. Berry, Bury. Worn, Warn. Break, Brake. Sail, Sale. Pail, Pale. Scent, Cent. Sent, Piece, Peace. Scene, Seen. Straight, Strait. Knight, Night. Side, Sighed. Stationery, Stationary. Meet, Meat. Advice, Advise. Sight, Site. Ail, Ale. Altar, Alter. Aloud, Allowed. Ascent, Assent. Adapt, Adopt. Birth, Berth. Bare, Bear. Bail, Bale. Ball, Bawl. Beech, Beach. Beat, Beet. Bred, Bread. Blew, Blue. Carat, Carrot. Born, Borne. Bolder, Boulder. Boarder, Border. Ceiling, Sealing. Cereal, Serial. Cymbal, Symbol. Cue, Queue. Council, Counsel. Carrier, Career. Canvas, Canvass. Dual, Duel. Disease, Decease. Die, Dye. Fair, Fare. Flew, Flue. Grate, Great. Lessen, Lesson. Loose, Lose. Not, Knot. Wring, Ring. Affect, Effect. Allusion, Illusion. Allude, Elude. Amend, Emend. Apposite, Opposite. Apprise, Appraise. Biannual, Biennial. Cemetery, Symmetry. Collision, Collusion. Coma, Comma. Contagious, Contiguous. Corporal, Corporeal. Corps, corpse. Confirm, Conform. Dairy, Diary. Decease, Disease. Diseased, Deceased. Descent, Decent. Defy, Deify. Elicit, Illicit. Emigrant, Immigrant. Eminent, Imminent. Enervate, Innervate. Enumerable, Innumerable. Exorcise, Exercise. Ghostly, Ghastly. Heaven, Haven. Idle, Ideal. Ingenious, Ingenuous. Moan, Mourn. Ordinance, Ordnance. Petrol, Patrol. Potable, Portable. Quiet, Quite. Spacious, Specious. Thrash, Thresh. Urban, Urbane. Venal, Venial. Wreath, Wreathe. Wreck, Wreak.



**SECTION “C”**  
**(DETAILED-ANSWER QUESTIONS)**

Note. Attempt all questions from this section. All questions carry equal marks.

1. **LETTER** To an editor of a newspaper expressing concern over (the hazard of traffic accidents and traffic jams in Karachi) or (law and order situation in Karachi) or (the inadequate supply of water in your locality) or (insanitary conditions in your locality) or (need for a public library in your locality) or (frequent power failure) or ( increasing street crimes)

**OR**

**STORIES** \*Unity is Strength \*Pride Hath a Fall \*Tit for Tat \*Knowledge is Power \*God Helps Those, Who Help Themselves \*No Pains, No Gains \*Might is Right \* Greed is Curse

2. **PARAGRAH WRITING**  
\*Discipline \*Energy Crisis \* Internet \*Patriotism \*Pollution \*Social Media \*Corruption  
\*Science \* An exciting Cricket Match \* Natural Disaster \* Terrorism

3. **TRANSLATION**  
Practice, as directed in the class.

# آدم جی کو چنگ سینٹر

تیاری پرچہ برائے امتحانات ۲۰۱۷-۲۰۱۸

اسلامی تعلیم - گیارہویں جماعت (سائنس گروپ)

اہم ہدایات برائے حصہ الف (کثیر الانتخابی سوالات)

حصہ الف جو کثیر الانتخابی سوالات پر مشتمل ہے اس کی بہتر تیاری کے لئے ضروری ہے کہ طالب علم درسی کتاب کے علاوہ پچھلے ۱۰ سالہ پرچوں سے بھی تیاری کریں۔

اہم سوالات برائے حصہ "ب"

☆ اہم قرآنی آیات واحادیث (ترجمہ کے لئے) برائے سوال نمبر ۱۔

- (i) یا ایہا الذین امنوا اتقوا اللہ و قولوا قولا سدیدہ یا انما بعثت لائم حسن الاخلاق
- (ii) لقد کان لکم فی رسول اللہ اسوة حسنة یا کل المسلم علی المسلم حرام دمه و ماله و عرضه
- (iii) ان فی خلق السموت و الارض و اختلاف الیل و النهار لایت لاولی الباب
- (iv) وما اتاکم الرسول فخذوه وما نہاکم عنه فانہوہا یا ولا تکسب کل نفس الا علیہا ولا تنزو زورۃ و زراخری
- (v) ان اللہ یامر بالعدل و الاحسان و اعنصمو بحبل اللہ جمیعاً و لا تفرقوا
- (vi) لن تنالو البر حتی تنفقوا مما تحبون / ان اکرمکم عند اللہ اتقکم
- (vii) المسلم من سلم المسلمون من لسانہ و یدہ / لا یرحمہ اللہ من لا یرحم الناس
- (viii) انما الاعمال بالنیات و انما لکل امری ماوی
- (ix) من سلک طریقاً یطلب فیہ علماً سلک اللہ بہ طریقاً من طرق الجنة

☆ اہم سوالات برائے سوال نمبر ۲۔

- (i) رسالت محمدی ﷺ کی دو خصوصیات تحریر کیجئے۔ یا و ما ارسلنک الا رخصۃ للعالملین سے کیا مراد ہے؟
- (ii) حج کے کوئی دو فوائد تحریر کیجئے۔ یا حج کی جامعیت تحریر کریں یا طواف اور سعی کے بارے میں تحریر کریں۔
- (iii) مکی آمدنی سورتوں کی خصوصیات تحریر کریں یا ملائکہ پر نوحہ تحریر کریں۔
- (iv) شرک کا مفہوم اور اس کی اقسام تحریر کریں۔ یا پانچ اخلاقی رذائل تحریر کریں۔
- (v) حدیث کے مطابق منافق کی نشانیاں کیا ہیں؟ یا رمضان اور پاکستان کا تعلق تحریر کریں۔
- (vi) جہاد بالسیف سے کیا مراد ہے؟ یا قرآن وحدیث میں صلح رحمی کے بارے میں کیا تلقین کی گئی ہے۔
- (vii) آسمانی کتابوں اور جن انبیاء پر نازل ہوئیں ان کے نام تحریر کریں۔
- (viii) اسلام کے بنیادی عقائد تحریر کریں یا اسلام کے بنیادی ارکان تحریر کریں۔
- (ix) ایفاء عہد کے بارے میں ایک قرآنی آیت اور حدیث کا ترجمہ تحریر کریں۔
- (x) والدین کے احترام کے بارے میں ایک قرآنی آیت کا ترجمہ تحریر کریں۔ یا قرآنی آیت کی روشنی میں والدین کے حقوق تحریر کریں۔



- (xi) طائف کے کفار کے بارے میں نبی ﷺ نے کیا ارشاد فرمایا۔
- (xii) غیبت اور اتہام میں کیا فرق ہے؟ یا ہمسایوں سے حسن سلوک کے بارے میں نبی کریم ﷺ نے کیا ارشاد فرمایا۔
- (xiii) حدیث کی روشنی میں قوموں کی جاہی کی وجہ کیا ہے؟ یا احترام قانون کی وضاحت کیجئے
- (xiv) مسواک کے بارے میں کسی حدیث کا ترجمہ لکھئے۔ یا قبیلہ دوس کے لئے رسول اکرم ﷺ نے کیا دعا فرمائی؟
- (xv) تمام آسمانی کتابوں کی مشترکہ تعلیمات کون سی ہیں؟
- (xvi) وحی کی تین صورتیں تحریر کریں۔ قرآنی آیت کی روشنی میں۔
- (xvii) چھ فرشتوں کے نام اور کام تحریر کریں۔ یا رشتہ مواخات کے بارے میں تحریر کریں۔
- (xviii) سورۃ توبہ کی روشنی میں مصارف زکوٰۃ تحریر کریں۔ یا حدیث کی تین اقسام تحریر کریں۔
- (xix) انبیاء علیہ السلام کی دو خصوصیات تحریر کریں۔ یا خطبہ حجۃ الوداع میں رسول کریم ﷺ نے انسانوں کو مساوات کے بارے میں کیا پیغام دیا۔
- (xx) ختم نبوت کے بارے میں ایک قرآنی آیت اور حدیث کا ترجمہ تحریر کریں۔
- (xxi) کلمہ شہادت کی عربی اور ترجمہ تحریر کریں۔ یا قرآن مجید کی دو خصوصیات تحریر کریں۔
- (xxii) روزہ انماز کے دو انفرادی فوائد تحریر کریں۔
- (xxiii) مناسک حج تحریر کریں۔ یا پانچ اخلاق محاسن تحریر کریں۔
- (xxiv) عمل صالح سے کیا مراد ہے؟ یا نجات و فلاح کیلئے کن دو چیزوں کا ہونا ضروری ہے۔
- (xxv) قرآن مجید کے اسماء تحریر کریں۔ یا اِنَّ اللّٰهَ مَعَ الصّٰبِرِیْنَ کی وضاحت کیجئے۔
- (xxvi) صحابہ کا جذبہ ایثار کے بارے میں تحریر کریں۔
- (xxvii) لَا دِیْنَ لِمَنْ لَا عَقِیْدَہْ کا مفہوم تحریر کریں۔

### اہم سوالات برائے حصہ "ج"

- ۴۔ اسلام کے بنیادی عقائد الگ الگ تحریر کریں۔ یا عقیدہ توحید یا عقیدہ آخرت کا مفہوم تحریر کریں اور انسانی زندگی پر اس کے اثرات تحریر کریں۔ یا انبیاء علیہ السلام کی خصوصیات تحریر کریں۔
- ۵۔ حج اور روزہ کی اہمیت قرآن وحدیث کی روشنی میں واضح کیجئے۔ نیز اس کے انفرادی اور اجتماعی فوائد بیان کریں۔
- ۶۔ والدین کے حقوق فرائض قرآن وحدیث کی روشنی میں تحریر کریں یا کسب حلال کی اہمیت تحریر کریں یا رذائل اخلاق تحریر کریں۔

**MATHEMATICS – XI**

It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 10 years and do preparation of all MCQ's which are provided by your teacher.

Ex: 1.1                      Q. 9, 15

Ex: 2.3 Q. 3, 4, 6

Ex: 3.8 Q: 1, 2, 3, 4, 5, 6, 8, 9, 10

Ex: 4.4 Q. 1(iv,viii), 5(iii,v,vii), (Do with both Cramer's rule & Matrix Method)

Ex: 5.3      Q. 2, 3, 6, 7, 8

Ex: 6.9 Q. 1, 3, 4, 5, 6

Ex: 7.4 Q. 2, 3

Ex: 8.5      Q. 1, 3, 5, 6, 10, 11, 13

Ex: 9.2 Q. 3, 4, 5, 8, 10, Example (page 303)



**CHAPTER NO. 10 (Trigonometric Identities)**

Ex: 10.1	Q. 4, 5, 7, 8, 9, 10, 11, 12, 18, 21 (ii, iv)
Ex: 10.2	Example (page 313) Q. 14, 16, 17, 18, 19, 20, 21
Ex: 10.3	Q. 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 17, 19, 20

**CHAPTER NO. 11 (Graphs of Trigonometric Function)**

Ex: 11.2	Q. 1, 2, 5, 6
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**CHAPTER NO. 12 (Solutions of Triangles)**

Ex: 12.1	Q. 2, 4, 5, 6
Ex: 12.2	Q. 1(v), 2, 3, 4, 5, 6, 7, 8
Ex: 12.4	Q. 1, 5, 9, 12, 13, 14
Ex: 12.5	Q. 1, 5, 9, 10, 11, 12, 13

**CHAPTER NO. 13 (Inverse Trigonometric Functions and Trigonometric Equations)**

Ex: 13.1	Q. 5, 6, 7, 8, 9, 10, 11, 13, 14
Ex: 13.2	Q. 1, 2, 3, 4, 11, 12, 15

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### PHYSICS - XI

#### Important Information:

1. \*\* means that topic is very important for Section "C".
2. \* means that topic is important for Section "B".
3. Without any sign means that you have to prepare to decrease the risk factor.
4. Information for MCQs (Section – A)  
It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 25 years and do preparation of all MCQ's which are provided by your teacher.

#### CHAPTER 01: Scope of Physics

##### Questions & Scientific Reasons:

1. \* Determine the dimension of following physical quantities:
 

• Angular Momentum	• Couple
• Torque	• Tension
• Power	• Gravitational Potential
• Gravitational Constant	• Frequency
• Work	
2. \* Define random and systematic error and how both are reduced.
3. \* Is it possible to have two quantities with the same dimension but different units. Give their examples.

#### CHAPTER 02: Scalars and Vectors

##### Questions & Scientific Reasons:

1. • Prove that:
 

** $\vec{A} \cdot \vec{B} = \vec{B} \cdot \vec{A}$	** $\vec{A} \times \vec{B} = \vec{B} \times \vec{A}$
** $\vec{A} \cdot (\vec{B} + \vec{C}) = \vec{A} \cdot \vec{B} + \vec{A} \cdot \vec{C}$	** $\text{Area } \square = \left  \vec{A} \times \vec{B} \right $
2. Should a quantity having magnitude and direction be necessarily a vector?
3. Can the magnitude of the resultant of two vectors be greater than the sum of magnitude of individual vector?
4. \*Can the resultant of two vectors of the same magnitude be equal to the magnitude of either of the vector? How?
5. \*It is possible to add three vectors of equal magnitude but different direction to get a null vector? If you think so, illustrate it by drawing a suitable diagram

**Problems Exercise:** Problem #: \*7, 10, \*12, \*13, \*15, \*16, 17, \*20, \*22, \*23

**Solved Example:** Example #: \*2.8, \*2.10, \*2.12 and \*2.13

**Past Papers:** \*2006 Q1 (d) and \*2009 Q2 (v)

#### Extra Problems:

1. \* One component of 100N force is 50N. Calculate its another component.
2. \* Two forces  $F_1$  and  $F_2$  which are equal in magnitude and their resultant  $F$  is equal to the magnitude of these forces. Determine angle between  $F_1$  and  $F_2$ .

#### CHAPTER 03: Motion

##### Questions & Scientific Reasons:

1. \*\*Elastic Collision in one dimension with their cases.
2. \*/\*\*Acceleration of bodies and tension of string when two bodies hang vertically.
3. \*The average velocity of a particle is zero but not its average speed. Is it possible?
4. \*Show that force is equal to the rate of change in momentum.
5. \*Under what condition acceleration will be maximum and minimum on an inclined plane.
6. \*Is it possible for a body to have acceleration when moving with (a) constant velocity (b) constant speed?
7. \*Why kinetic friction is less than the limiting friction?



8. \*It is observed that all bodies sliding down a frictionless inclined plane have the same acceleration.

**Problems Exercise:** Problem #: \*2, \*3, \*4, \*5, \*9, 10, \*11, \*12, \*13, and \*16  
**Solved Example:** Example #: \*3.1, \*3.2, and \*3.7  
**Past Papers:** \*2007 Q1 (d) and \*2006 Q2 (d)

#### CHAPTER 04: Motion in Two Dimensions

##### Questions & Scientific Reasons:

1. \*\*Define projectile motion. Derive mathematical expression of trajectory for projectile, Max. height and range of projectile.
2. \* Derivation for centripetal acceleration.
3. \*Show that when a projectile is projected with  $76^\circ$ , its horizontal range will be equal to the maximum height.

**Problems Exercise:** Problem #: \*4, \*6, \*7, \*8, 10, \*12  
**Solved Example:** Example #: \*4.2  
**Past Papers:** \*2009 Q2 (VIII), \*2008 Q3 (d), \*2007 Q2 (d), \*2006 Q3 (d), \*2005 Q3 (d), 2012 Q2(viii), \*2011 Q2 (ix)

##### Extra Question:

1. \* The range of a missile is 100km and its target is 25km then calculate its two possible launch angles and min or max time of flight.
2. \* Prove that max. range is equal to four time its max. height. Also calculate angle of projection.

#### CHAPTER 05: Torque, Angular Momentum and Equilibrium

##### Questions & Scientific Reasons:

1. \*Define equilibrium. Also explain conditions of equilibrium.
2. \*State and prove law of conservation of angular momentum.

**Problems Exercise:** Problem #: \*8 and \*10  
**Solved Example:** Example #: \*5.3, 5.5  
**Past Papers:** 2013; Q2 (i)

#### CHAPTER 06: Gravitation

##### Questions & Scientific Reasons:

1. \*\*Derive an expression for gravitational acceleration in both cases;  
 (i) w.r.t depth (ii) w.r.t. altitude
2. \* How to produce artificial gravity in a space craft. Explain.
3. \* Discuss the phenomenon of weightlessness.
4. \*What happen with the gravitational force if the masses as well as the distance between the bodies are doubled?

**Problems Exercise:** Problem #: \*2, \*4, \*5 and \*6  
**Solved Example:** Example #: 6.2  
**Past Papers:** \*2008 Q4 (d); \* 2013 Q2 (ii)  
**Extra Problem:** \*At what depth from earth surface where gravitational acceleration becomes . three fourth as earth surface.

#### CHAPTER 07: Work, Power and Energy

##### Questions & Scientific Reasons:

1. \*\*Explain work energy equation. Estate a mathematical expression.
2. \*\* Derive a mathematical expression for Absolute PE.
3. \*Show that power is the scalar product of force and velocity.

**Problems Exercise:** Problem #: \*1, \*4, \*5, 6 and 7  
**Past Papers:** 2012 Q2(iv)

**CHAPTER 08: Wave Motion and Sound****Questions & Scientific Reasons:**

1. \*\* Derive  $f\lambda = v$  where all terms are using in their usual meaning.
2. \*\*Define SHM and give its conditions. Prove that projection of particle "P" on diameter of a circle executes S.H.M. and derive formula for its time period.
3. \*Derive the expression for instantaneous velocity of projection of a particle moving with uniform speed on the circumference of a circle. Also prove mathematically the total energy of a body attached to an elastic spring and executing SHM remains the same everywhere.
4. \*Define intensity of Sound and loudness. Explain the phenomenon of Beats, obtain an expression for beat frequency.
5. \*\*Explain Newton's formula for speed of sound. Also explain Laplace Correction.
6. \* Sonometer & its laws for standing wave.
7. State the basic conditions of simple harmonic motion.
8. \*A certain simple pendulum has an iron bob. Would its behavior change if we replace the iron bob with a lead bob of the same size?
9. \*Will the period of a vibrating spring increase, decrease or remain constant by addition of more weight?
10. \*What happen to the time period if the length of the pendulum is changed?
11. \* What happen to the time period of the pendulum if the mass of bob is changed?
12. \* Would you keep the amplitude of a simple pendulum small or large? Why?
13. \* How the speed of a transverse wave in the string will change if its tension is made four times.
14. \*Why does sound travels faster in solids than in gases.

**Problems Exercise:** Problem #: \*2, \*4, \*\*5, \*6, 9 and \*10

**Solved Example:** Example #: \*8.3, \*8.5

**Past Papers:** \*2009 Q2 (x), \*2008 Q5 (d), \*2008 Q6 (d), \*2009 Q2 (xiii), \*2007 Q5 (d), \*2007 Q6 (d), \*2006 Q5 (d), \*2006 Q6 (d).

**CHAPTER 09: Nature of Light****Questions & Scientific Reasons:**

1. \*\*Define diffraction. What is diffraction grating? How it is used to determine the wavelength of sodium light? Obtain the relevant mathematical expression.
2. \*Define X-Rays? Derive Bragg's law for x-ray diffraction.
3. \*\*Define interference of light. Explain Newton's ring. Also derive formula for the radius of  $N^{\text{th}}$  Newton's ring.
4. \*What is the necessary condition for the path difference between two waves when they interfere (a) constructively (b) destructively.
5. \*Explain, why it is said that the light wave fronts from sun are plane wave fronts.
6. \*Why central ring in the Newton's ring always be dark.
7. \*Differentiate between Fresnel diffraction and Fraunhofer diffraction.

**Problems Exercise:** Problem #: \*9.3, \*9.4, \*9.6, \*9.8 and \*9.9

**Solved Example:** Example #: \*9.1

**Past Papers:** 2009 Q2 (XII), 2008 Q7 (d) and 2000 Q7 (d)

**CHAPTER 10: Geometrical Optics****Questions & Scientific Reasons:**

1. \*\*Define compound microscope. Write down its construction and working. Also derive formula for its angular magnification.
2. \*\*Define simple microscope and magnifying glass. Derive formula for its angular magnification.
3. \*Derive the lens formula for a convex lens. Why do thick lenses possess chromatic and spherical aberrations? Suggest remedies for these defects.

**Problems Exercise:** Problem #: 3.6, \*8, \*9, \*12, 13 and \*14

**Solved Example:** Example #: 10.6, 10.7

**Past Papers:** \*2009 Q2 (ix), \*2008 Q8 (d), \*2007 Q8 (d) and \*2206 Q8 (d); 2012 Q2(xii)



# آدم جی کوچنگ سینٹر

تیاری پرچہ برائے امتحانات ۲۰۱۷-۲۰۱۸

اردو۔ گیارہویں جماعت (سائنس گروپ)

اہم ہدایات برائے حصہ الف (کثیر الانتخابی سوالات)

حصہ ”ب“ (مختصر جواب کے سوالات)

سوال نمبر (۲): مندرجہ ذیل اشعار میں سے دو کی تشریح، شاعر کے حوالے کے ساتھ کریں۔ [۱۰]

طریقہ جواب سوال نمبر ۲

☆..... ایک شعر کی تشریح کے ۵ نمبر ہیں:

حوالہ شاعر نمبر

تشریح نمبر

☆..... حوالہ شاعر میں شاعر کا نام اور ایک لقب تحریر کر دینا کافی ہے۔

☆..... تشریح کے ذیل میں شعر کا بنیادی خیال اور فی محاسن کی نشان دہی کے ساتھ ممکنہ پس منظر موزوں الفاظ میں تحریر کیا جائے۔

☆..... ہر شعر کی تشریح میں لازمی طور پر بھرتی کے مماثل شعر شامل کرنے سے گریز کیا جائے۔

تشریح کے لیے اہم غزلیات:

۱۔ میر تقی میر (دونوں غزلیں)

۲۔ خواجہ میر درد (دونوں غزلیں)

۳۔ مرزا اسد اللہ خاں غالب (دونوں غزلیں)

۴۔ مولانا حسرت موہانی (دونوں غزلیں)

☆.....☆.....☆

سوال نمبر (۳): (الف) منتخب کردہ اقتباس کے مصنف اور سبق کا نام تحریر کریں۔ [۰۲]

(ب) مندرجہ ذیل میں سے کسی ایک اقتباس کی تشریح کریں۔ [۰۶]

طریقہ جواب سوال نمبر ۳

☆..... اقتباس کی تشریح چند بنیادی نکات پر منحصر ہوتا ہے، ان نکات کی تشریح ربط و تسلسل کے ساتھ کرنا زیادہ نمبر کا مستحق بناتا ہے۔

☆..... حوالہ مصنف میں مصنف کا نام اور ایک لقب تحریر کر دینا بہت کافی ہے۔ تفصیلات کی ضرورت نہیں۔

☆..... حوالہ سبق میں سبق کا نام اور سبق کا ماخذ لکھ دینا کافی ہے۔ اضافی تفصیلات تحریر کرنے پر بھی دوہی نمبر دیے جائیں گے۔

## اہم اقتباسات:

صفحہ نمبر	سبق کا نام	اقتباس	نمبر شمار
۱	رسم و رواج کی پابندی کے نقصانات	انسان کی زندگی کا منشا یہ ہے..... نہایت مناسب مجموعہ ہو۔	۱۔
۱	رسم و رواج کی پابندی کے نقصانات	بے سوچے اور بے سمجھے رسومات..... جدا جدا عنایت کی ہیں۔	۲۔
۲	رسم و رواج کی پابندی کے نقصانات	اخلاقی اور عقلی قوتوں کی ترقی..... کسی قوت کی حاجت نہیں۔	۳۔
۲	رسم و رواج کی پابندی کے نقصانات	جو امر کہ پسندیدہ..... ہمیشہ اسی سے لپٹے رہیں۔	۴۔
۲	رسم و رواج کی پابندی کے نقصانات	یہ بات خیال کی جاتی ہے..... جذبول کو پڑمردہ اور ضعیف۔	۵۔
۳	رسم و رواج کی پابندی کے نقصانات	رسومات جو مقرر ہوئی ہیں..... صحیح صحیح بیان نہ ہوا ہو۔	۶۔
۴	رسم و رواج کی پابندی کے نقصانات	رسم کی پابندی ہر جگہ انسان..... حالت کا اصلی باعث ہوتی ہے۔	۷۔
۴	رسم و رواج کی پابندی کے نقصانات	ان مشرقی یا ایشیائی قوموں میں..... پیدا نہیں ہوئے تھے۔	۸۔
۵	رسم و رواج کی پابندی کے نقصانات	تواریخ سے ثابت ہے..... اس زمانے میں یہی حال ہے۔	۹۔
۸	مسلمانوں کا قدیم طرزِ تعلیم	اگرچہ متواتر انقلابات..... فن کا نشان دے سکتے ہیں۔	۱۰۔
۸	مسلمانوں کا قدیم طرزِ تعلیم	مشہور علماء کے تعلیمی حالات..... پوری قابلیت رکھتے تھے۔	۱۱۔
۹	مسلمانوں کا قدیم طرزِ تعلیم	اعلیٰ تعلیم کے لیے..... حیرت کی نگاہ سے دیکھتے تھے۔	۱۲۔
۹	مسلمانوں کا قدیم طرزِ تعلیم	دوسری چیز جو اعلیٰ تعلیم..... منعقد کرتے تھے۔	۱۳۔
۱۰	مسلمانوں کا قدیم طرزِ تعلیم	اب خیال کرو کہ..... کس حد تک پہنچا کر رہے گی۔	۱۴۔
۱۹	حج اور جھوٹ کا زرم نامہ	عالم سفلی میں دروغ دیوزاد..... میں وہ آجاتا تھا۔	۱۵۔
۱۹	حج اور جھوٹ کا زرم نامہ	جب یہ دودعویدار..... لڑائی کا انجام کیا ہو؟	۱۶۔
۲۰	حج اور جھوٹ کا زرم نامہ	ملکہ کی شان شاہانہ تھی..... نہ ہٹ سکتا تھا۔	۱۷۔
۳۳	تشکیل پاکستان	ان مساعی کا نتیجہ یہ ہوا..... اصلاح ضروری ہوگئی۔	۱۸۔
۳۸	تشکیل پاکستان	مسلمانوں کا نصب العین..... مسلمانوں کا نصب العین۔	۱۹۔
۴۳	جدید سائنس اور عصری ثقافت	سائنس کی تمام ایجادات..... صدیوں پیچھے چلا جائے گا۔	۲۰۔
۴۳	جدید سائنس اور عصری ثقافت	بیماروں کے لیے یہ آبِ شفا..... کفالت کی ضمانت ہے۔	۲۱۔
۸۱	خطوطِ غالب	میاں کیا باتیں کرتے ہو؟..... کتابیں کیا چھپواؤں گا۔	۲۲۔
۸۲	خطوطِ غالب	اکلِ خطہ کا حال..... قصاص کون لے گا؟	۲۳۔
۸۳	خطوطِ غالب	یہ ایک شیوہ فرسودہ..... کہوں گا یوسف مرزا کو۔	۲۴۔
۸۹	خطِ اقبال	جہاز کے سفر میں..... پورا یقین ہو جاتا ہے۔	۲۵۔
۹۰	خطِ اقبال	اے عرب کی مقدس..... آفتاب سے محفوظ رکھا ہے۔	۲۶۔
۹۰	خطِ اقبال	کاش میرے بدکردار..... عاشقانہ آواز گونجتی تھی۔	۲۷۔



- سوال نمبر (۴): (الف) درج ذیل نظم کے شاعر کا مختصر تعارف تحریر کیجیے۔ [۰۲]  
 (ب) درج ذیل نظم کا مرکزی خیال تحریر کیجیے۔ [۰۶]

.....یا.....

- (الف) درج ذیل جز کے شاعر اور نظم کا نام تحریر کیجیے۔ [۰۲]  
 (ب) درج ذیل جز کی تشریح کیجیے۔ [۰۶]

طریقہ جواب سوال نمبر ۴

- ☆.....مرکزی خیال، خلاصے کی طرز پر تفصیلی تحریر نہیں کرنا چاہیے۔  
 ☆.....مرکزی خیال کا مقصد نظم کا بنیادی مضمون بتانا ہے لہذا کم سے کم مواد پر اتفاق کر لیا جائے۔  
 ☆.....مرکزی خیال میں مناسب اشعار کا استعمال مستحسن ہے۔

تشریح کے لیے اہم بند:

- ۱۔ حمد ۲۔ بند ۳۔ بند ۵  
 ۲۔ برسات کی بہاریں ۵۔ بند ۷  
 ۳۔ تعلیمات نبوی ﷺ ۲۔ بند ۳، ۴۔ بند ۳  
 ۴۔ روح ارضی آدم کا استقبال کرتی ہے ۳۔ بند ۴

مرکزی خیال کے لیے اہم نظمیں:

- سورہ رحمن (ایک تاثر) پرانا کوٹ روح ارضی آدم کا استقبال کرتی ہے  
 برسات کی بہاریں آمد صبح

☆.....☆.....☆

- سوال نمبر (۵): (الف) منتخب کردہ سبق کے مصنف کا مختصر تعارف تحریر کیجیے۔ [۰۲]  
 (ب) درج ذیل میں سے کسی ایک سبق کا خلاصہ تحریر کیجیے۔ [۰۶]

.....یا.....

- مندرجہ ذیل میں سے دو سوالات کے جوابات تحریر کریں۔ [۰۸]

طریقہ جواب سوال نمبر ۵

- ☆.....خلاصے کا مواد اصل سبق کا تقریباً ایک تہائی ہونا چاہیے۔ اس میں وہ تمام نکات بیان کیے جائیں جن پر کہانی تعمیر ہوئی ہے۔  
 ☆.....خلاصے میں عنوانات قائم کرنے سے گریز کیا جائے۔  
 ☆.....اشعار کا استعمال بالکل نہیں ہونا چاہیے، کیوں کہ اشعار لکھنا خلاصے کی روح کے خلاف ہے۔

خلاصہ کے لیے اہم اسباق:

- میل اور میں مایل اور میں  
 آزادی کی راہ میں بایک کل کی تعلیم  
 شعلے والا شہزادہ

## اہم سوالات:

- (۱) بے سوچے اور بے سمجھے پرانی رسومات کی تقلید سے کیا نقصانات ہوتے ہیں؟
  - (۲) یہ خیال کہ پرانی رسم و رواج کی پابندی سے انسان خراب ہو جاتا ہے، کیوں غلط ہے؟
  - (۳) رسومات کی کورانہ تقلید کس طرح انسان کو تنزل کی طرف لے جاتی ہے؟
  - (۴) قدیم زمانے کے مسلمانوں میں تعلیم و تعلیم کی کیا صورت تھی؟
  - (۵) جب مسلمانوں میں تصنیف و تالیف کا سلسلہ شروع ہوا تو درس گاہوں میں کون کون سے علوم پڑھائے جاتے تھے؟
  - (۶) علوم نقلی اور علوم عقلی میں کیا فرق ہے؟
  - (۷) مسلمانوں کے عروج کے زمانے میں کن کن مقامات کو علمی مراکز کا درجہ حاصل تھا اور کیوں؟
  - (۸) روزمرہ اور محاورے میں کیا فرق ہے؟
  - (۹) تمثیل نگاری کسے کہتے ہیں؟
  - (۱۰) شاہ ولی اللہ کی اصلاحی تحریک کا مقصد کیا تھا؟
  - (۱۱) سرسید احمد خان نے برصغیر پاک و ہند کے مسلمانوں کے لیے جو خدمات انجام دیں وہ تحریر کیجئے۔
  - (۱۲) علامہ اقبال نے مسلمانوں کی بیداری کے لیے کن چیزوں کو اہم قرار دیا؟
  - (۱۳) سرسید کے بعد ان کے جانشینوں نے کیا اہم قومی اور دینی خدمات انجام دیں؟
  - (۱۴) سائنس کو ایک تجرباتی علم کن لوگوں نے بنایا؟
  - (۱۵) سائنس کی ترقی میں حصہ لیاں کیوں ضروری ہے؟
  - (۱۶) سائنس کا مستقبل کیا ہے؟
  - (۱۷) سبق ”ما عظمت“ سے سبق سے ہمیں کیا سبق ملتا ہے؟
  - (۱۸) دنیا میں لوگوں کے کیا کیا شوق ہوتے ہیں اور ان کے لیے وہ کیا کرتے ہیں؟
  - (۱۹) الکوہ نخواست کی نشانی سمجھنا کہاں تک درست ہے؟
  - (۲۰) حضرت یحییٰ علیہ السلام کا مزار کہاں ہے؟ اور لوگ وہاں اکٹھے کیا کرتے ہیں؟
  - (۲۱) جامع مسجد کے شرقی منارے کے متعلق کیا روایت ہے؟
  - (۲۲) میکسیکوٹی کی تعمیر و ترقی میں کن کن لوگوں نے اہم کردار ادا کیا ہے؟
  - (۲۳) علامہ اقبال نے دہلی کو اسلامی شان و شوکت کا قبرستان کیوں کہا ہے؟
- ☆.....☆.....☆

[۰۸]

سوال نمبر (۶): مندرجہ ذیل میں سے کسی دو کی تعریف شعری امثال کے ساتھ کیجئے۔

طریقہ جواب سوال نمبر ۶

☆.....مذکورہ تعریف کو تین حصوں پر مشتمل ہونا چاہیے:

۱۔ تعریف [۲]

۲۔ شعری امثال [۱.۵]



## ۳۔ شعری مثال کی وضاحت [۰۵]

☆..... تعریف ذکر کر کے اس کی ایک شعری مثال دینا اور پھر اس مثال کی وضاحت کرنا نہایت ضروری ہے۔

.....یا.....

[۰۸] شامل نصاب غزلیات میں سے دو شعراء کے دو، دو اشعار تحریر کیجیے۔ جو پرچہ میں نہ ہوں۔

☆.....☆.....☆

[۰۸] سوال نمبر (۷): درج ذیل محاوروں کو اپنے جملوں میں استعمال کیجیے۔

زندہ درگور کرنا	سبز باغ دکھانا	ہاتھوں کے ٹوٹے اڑنا	تن بدن میں آگ لگنا
تین پانچ کرنا	سٹی گم ہونا	زخموں پر نمک چھڑکنا	آنکھوں میں خون چڑھ جانا
آنکھیں کھل جانا	جی جل جانا		

.....یا.....

[۰۸] درج ذیل میں سے کسی دو اصناف ادب کی تعریف کیجیے۔

ناول	مرثیہ	حمہ	نعت
غزل	سفرنامہ		

☆.....☆.....☆

### حصہ ”ج“ (تفصیلی جواب کے سوالات)

[۱۵] سوال نمبر (۸): مندرجہ ذیل میں سے کسی ایک شاعر کے اسلوب پر تبصرہ کریں۔

طریقہ جواب سوال نمبر ۸

☆..... ۱۵ نمبر کے اس سوال کو تین حصوں پر مشتمل ہونا چاہیے:

۱۔ عمدہ تمہید، تعارف۔

۲۔ دس سے بارہ خصوصیات، تکرار نہ ہو، ہر خصوصیت کے لیے مناسب شعر ذکر کیا جائے۔

۳۔ تین سے چار مستند ناقدین کی آراء تحریر کی جائیں۔

تبصرہ کے لیے اہم شعراء:

میر تقی میر	خواجہ میر درد	نظیر اکبر آبادی
مرزا اسد اللہ خاں غالب	حسرت موہانی	

☆.....☆.....☆

[۱۵]

سوال نمبر (۹): مندرجہ ذیل میں سے کسی ایک نثر نگار کے طرزِ تحریر پر تبصرہ کریں۔

طریقہ جواب سوال نمبر ۹

☆.....۱۵ نمبر کے اس سوال کو تین حصوں پر مشتمل ہونا چاہیے:

۱۔ عمدہ تمہید، تعارف۔

۲۔ دس سے بارہ خصوصیات، بتکرار نہ ہو۔ (ہر خصوصیت کے ساتھ شعری مثال کی طرز پر نثری ٹکڑے لکھنا اچھا ہے، ضروری نہیں)

۳۔ تین سے چار مستند ناقدین کی آراء تحریر کی جائیں۔

تبصرہ کے لیے اہم نثر نگار:

پطرس بخاری

مولانا حسین آزاد

سر سید احمد خان

الطاف حسین حالی / شبلی نعمانی

ڈپٹی نذیر احمد



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017 – 2018

### ZOOLOGY - XI

**Important Information: Remember this is not a guess paper. The preparation paper help you that how you initiate your study**

Information for MCQs (Section – A)

For MCQ's read your text book carefully line by line and mark all important points with highlighter.

### Important Questions for Section 'B'

#### CHAPTER NO. 1 (The Biology)

##### Non reasoning questions:

- Q.1. Define Biology and any 4 branches of Biology.
- Q.2. Describe Hydroponics (OR) Biological organization

##### Reasoning questions:

- Q.1. Why malarial concepts called hypothesis?
- Q.2. Distinguish between inductive reasoning and deductive reasoning?
- Q.3. A population is heavily affected by different epidemics what necessary actions should be followed to formulate a tentative statement as a scientist for specific diagnosis.
- Q.4. How artificial cloning is helpful for humans?
- Q.5. How phyletic lineage is important to us?

#### CHAPTER NO. 2 (Biological Molecules)

##### Non reasoning questions:

- Q.1. Differentiate between:
  - (a) Saturated and unsaturated acylglycerol
  - (b) Steroids and Carotenoids
- Q.2. Write a note on RNA as a carrier of Information.

##### Reasoning questions:

- Q.1. Many birds must store large amounts of energy to power flight during migration. Which type of organic molecules would be the most advantageous for energy storage. Why?
- Q.2. Why doesn't oil dissolve in water? Give a scientific explanation.
- Q.3. Monosaccharides are called 'reducing sugars' but disaccharides are not. Why?
- Q.4. Why butter solid and mustard oil is liquid at room temperature?
- Q.5. Why is water an amphoteric molecule?
- Q.6. Why carbon is said to be the back bone of bio-molecules?
- Q.7. Why urea production is high when person's diet contain more protein than is need for growth and repair?
- Q.8. Why is salt added in excess to pickles?
- Q.9. Steroids are not true lipids

#### CHAPTER NO. 3 (Enzymes)

##### Non reasoning questions:

- Q.1. Define enzyme, mode of action of enzyme (key lock and induced fit model) and energy of activation
- Q.2. How many types of enzymes?

##### Reasoning questions:

- Q.1. How enzymes act upon energy of activation?
- Q.2. Why the "induced fit" model is more widely accepted than the "lock and key" model?
- Q.3. Why are enzymes called as biocatalysts?
- Q.4. How the concentration of the product always is kept within a certain range?



**CHAPTER NO. 7 (The Kingdom Protocista)****Non reasoning questions:**

Q.1. Define hypothesis and malarial concepts with sign and symptoms. Describe the life cycle of plasmodium.

**Reasoning questions:**

Q.1. How colonial protozoan different from multicellular animals?

Q.2. Why all protozoans not performing phagocytosis while all of them have cell membrane?

Q.3. Why mosquito is called vector for malaria?

**CHAPTER NO. 10 (The Kingdom Animalia)****Non reasoning questions:**

Q.1. Differentiate Between:

- (a) *Chondrichthyes and Osteichthyes*
- (b) *Acraniata and Craniata*
- (c) *Bilateral symmetry and Radial symmetry*
- (d) *Diploblastic and Triploblastic organization*
- (e) *Complete and Incomplete metamorphosis*
- (f) *Pseudo-coelom and Coelom*
- (g) *Open type and Close type circulatory system*
- (h) *Warm blooded and Cold blooded animals*

Q.2. Describe phylum Hemi-Chordate OR Echinodermata OR Porifera

Q.3. Write a short note on phylum Platyhelminthes & Nematoda

Q.4. What is Alternation of Generation and polymorphism? Describe with reference to phylum Cnidaria.

Q.5. Write a note on parasitic adaptation in Platyhelminthes.

Q.6. Write a note on economic importance of Annelida or Mollusca OR Write down the diseases of nematodes.

Q.7. Write a note on coral and coral reefs.

Q.8. Write down the advantages of segmentation and coelom or advantages of exo skeleton.

Q.9. Define metamorphosis with types and examples and economic importance of Arthropods

Q.10. Define affinities and characteristic of chordates.

Q.11. Write a note on successful land vertebrates OR origin of birds OR flight adaptation of birds.

Q.12. Name the common groups of edible fishes OR fishes of Pakistan.

**Reasoning questions:**

Q.1. Why Porifera have different types of canal system in the body?

Q.2. Why proto-nephridia are called flame cells?

Q.3. How echinoderms are closely related to chordates and hemichordates?

Q.4. Why Agnatha group is also called jaw-less fishes?

Q.5. Amphibians are said to be un-successful land vertebrates. Why?

Q.5. Give reasons why a snail and an octopus are classified under the same phylum?

Q.6. Give reasons why a snail and an octopus are classified under the same phylum?

**CHAPTER NO. 12 (Nutrition)****Non reasoning questions:**

Q.1. Differentiate between

- \* Anorexia nervosa and Bulimia nervosa.
- \* Tube like and Sac like digestive tract
- \* Peristalsis and Anti-peristalsis

Q.2. Write a note on digestion in Amoeba, Planaria, Hydra and Cockroach

Q.3. What is holozoic nutrition?

Q.4. Write a short note on dental diseases?

**Reasoning questions:**

Q.1. Why doesn't food enter the trachea instead the esophagus?

Q.2. How are the gastric mucosa protected from the acidic pH of the stomach?



- Q.3. How does pancreatic juice participate in the digestion of proteins? What enzymes are involved?
- Q.4. In the stomach and small intestine, the enzymes for digestion of proteins are secreted in an inactive form. Why?
- Q.5. A person eats chicken broast .Name the enzymes that will digest this meal in the GIT?
- Q.6. Why hydra has both types of digestion?

### **CHAPTER NO. 13 (Gaseous Exchange)**

#### **Non reasoning questions:**

- Q.1. Describe respiratory system in earthworm, cockroach, fishes, birds and frog and explain counter current exchange in fishes?
- Q.2. Describe lung capacity? What is the role of haemoglobin and myoglobin in respiration? Define positive and negative breathing pressure?
- Q.3. Describe all respiratory disorders and define complete and incomplete ventilation?

#### **Reasoning questions:**

- Q.1. How breathing is different from respiration?
- Q.2. Why air is better respiratory medium than water?
- Q.3. Birds that fly at high altitudes need an especially efficient respiratory system. Why?
- Q.4. Why do the walls of trachea do not collapse when there is less air in it?
- Q.5. How does carbon mono oxide acts as a poison for human beings?
- Q.6. Why is the higher percentage of carbon dioxide transported by water of RBCs as compared to water of plasma? Also gives the equations of this process?

### **CHAPTER NO. 14 (Transport)**

#### **Non reasoning questions:**

- Q.1. How many types of blood circulation?
- Q.2. Define Pulse rate, B.P, Blue babies, SAN, Edema
- Q.3. Write a note on blood vessels? What do you know about artificial pace maker?
- Q.4. Describe lymphatic system

#### **Reasoning questions:**

- Q.1. How do white cells differ from red cells? Give reasons.
- Q.2. Why is blood important for larger animals?
- Q.3. Amphibian circulation can be classified as double and incomplete. Why?
- Q.4. How does edema occur? Give reasons.
- Q.5. Why do RBCs begin to burst when placed in distilled water?
- Q.6. Why is a closed circulatory system more efficient than an open circulatory system?

**Draw a neat and labeled diagram of the following:**

- |                                  |                            |
|----------------------------------|----------------------------|
| * LS of hydra                    | * Human Respiratory system |
| * Human heart internal structure | * Human digestive system   |
| * Villi                          |                            |

**Label the following diagram only:**

- |                                                |                                              |
|------------------------------------------------|----------------------------------------------|
| * Planaria (internal structure)                | * Ascon type or Leucon type                  |
| * Fish (breathing)                             | * Star fish (water vascular system)          |
| * Paramecium or Trypanosoma                    |                                              |
| * Life cycle of plasmodium                     | * Triploblastic or Diploblastic organization |
| * Neries or Hirudinaria                        | * Mollusca                                   |
| * Insect                                       | * Prawn                                      |
| * A generalized chordate                       | * Ascidia                                    |
| * Air sacs of a bird                           | * Digestive system of Cockroach              |
| * Respiratory organ of earth worm or Cockroach |                                              |
| * Stomach muscle layers                        | * Lymph node                                 |

## Important Questions for Section 'C'

### CHAPTER NO. 1 (Introduction to Biology)

Q.1. Write a detail note on "Application of biology for human welfare."

### CHAPTER NO. 2 (Biological Molecules)

Q.1. What is nucleotide? Explain the structure of nucleotide molecules with its type

Q.2. Write a detail note on Protein

### CHAPTER NO. 3 (Enzymes)

Q.1. What are enzymes? Classify them, write down important characters and their role (mode of action)

### CHAPTER NO. 7 (Kingdom Protoctista)

Q.1. Briefly describe animal like Protoctists

Q.2. Explain the life cycle of Malarial parasite

### CHAPTER NO. 10 (The Kingdom Animalia)

Q.1. What do you mean by polyp and medusa? Mention their functions describe the characters of that phylum and its classes with examples in which cnidocytes are present.

OR

Describe the salient features of Phylum Mollusca OR Arthropoda

OR

Write a detail note on Class Reptilia or Pices or Aves

### CHAPTER NO. 12 (Nutrition)

Q.1. Write a detail note on human digestive system with label diagram.

### CHAPTER NO. 13 (Gaseous Exchange)

Q.1. Describe the breathing mechanism in human. Explain the transport of CO<sub>2</sub> and O<sub>2</sub>

OR

State and explain the respiratory system of man.

Q.2. Explain in detail the process of respiration in animals.

### CHAPTER NO. 14 (Transport)

Q.1. List Cardio-vascular disorders. Write the causes, symptoms and precautionary measures of any five disorders mentioned in the list.

Q.2. What is immunity? Describe innate immune system.



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### BOTANY – XII

#### Important Information:

#### Information for MCQs (Section - A)

It is not possible to attempt all MCQs but for the Preparation of MCQs read your syllabus book, Attempt all MCQs of last 25 years and do preparation of all MCQs which are provided by your teacher.

#### CHAPTER NO:1 (Homeostasis)

##### Short Questions/Answers

Define Osmoregulation and Thermoregulation, Adaptations in Xerophytes, Hydrophytes

##### Detail Questions/Answers

Osmoregulation in plants (Four Groups)

#### CHAPTER NO:2 (Support and Movement)

##### Short Questions/Answers

Differentiate between Tracheids and Vessels, Heartwood and Sapwood, Sclerenchyma, Nastic Movement. Significance of Secondary tissues.

#### CHAPTER NO:3 (Coordination and Control)

##### Short Questions/Answers

Biological Clock, Biohythm and Circadian Rhythms, Defense against pathogens (Lines of defense)

##### Detail Questions/Answers

Responses to environmental stress. Plant Hormones.

#### CHAPTER NO:4 (Reproduction)

##### Short Questions/Answers

Pollination and Types, Tissue culture, Development male/Female gametophyte, structure of Dicot and monocot seeds, Parthenocarpy chart shows the effects of red light and far red light, Seed dormancy,

Differentiate racemose and cymose inflorescence.

#### CHAPTER NO:5 (Growth and Development)

##### Short Questions/Answers

Phases of Growth, Diagram of L.S of stem and root apices showing growth. Growth correlation.

##### Detail Questions/Answers

Conditions which alter the rate of growth.

#### CHAPTER NO:6 (Chromosomes and DNA)

##### Short Questions/Answers

Chromosomal theory of heredity, The one gene-one enzyme hypothesis, Mutation and types, Sickle cell anaemia,

##### Detail Questions/Answers

Gene expression, DNA damage.

**CHAPTER NO:7 (Cell Cycle)**

**Short Questions/Answers**

Necrosis and Apoptosis, Meiotic error,

**Detail Questions/Answers**

Meiosis and Mitosis.

**CHAPTER NO:8 (Variation and Genetics )**

**Short Questions/Answers**

Test cross, incomplete and codominance, Choice of experimental material. Epistasis, Polygenic inheritance, Pleiotropy, Linkage and Diabetes Mellitus, Law of segregation Multiple alleles.

**Detail Questions/Answers**

Law of Independent Assortment, Sex linked inheritance in man with two examples.

**CHAPTER NO:11 (Ecosystem)**

**Short Questions/Answers**

Define Population, Community, Climatic factors, Topographic Factors, Nitrogen Cycle.

**Detail Questions/Answers**

Approaches to Ecology, Interaction and Types of Interaction, Interspecific association (e.g) Parasitism, Symbiosis, Predation and Grazing), Ecological Succession (Hydrosere)

**CHAPTER NO:12 (Some Major Ecosystem)**

**Short Questions/Answers**

Pond Ecosystem, Graphic representation Life in the sea.

**Detail Questions/Answers**

Define Biome Discuss, Tropical rainforest.



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### XII - Chemistry

#### Important Information:

Information for MCQs (Section – A)

It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 25 years and do preparation of all MCQ's which are provided by your teacher.

### PART-I (INORGANIC CHEMISTRY)

#### CHAPTER NO. 1 :

- State Mendeleev's periodic law? Discuss advantages and defects of Mendeleev's periodic table.
- State modern periodic law? How elements are classified on the basis of electronic configuration?
- How modern periodic table removed the weaknesses of Mendeleev's periodic table.
- Define periodicity. What are short and long periods of modern periodic table? How many periods are there in modern periodic table?
- Find out address of following elements in modern periodic table having atomic number:  
\* 9      \* 13      \* 19      \* 24      \* 29      \* 42      \* 47
- Differentiate between p-block active and p-block inactive elements.
- Write the valence shell electronic configuration of the following:  
\* Representative elements \* Inner transition elements \* Group VI-B & I-B \* Group IIIA & IIIB.

#### CHAPTER NO. 2 :

- Discuss position of hydrogen in group I-A and VII-A.
- What do you mean by hydrides? How are they classified? Discuss ionic and covalent hydrides in detail.
- Define water gas? Write two methods of its preparation and two methods for separation of hydrogen gas from water gas.
- Differentiate between Atomic & Nascent hydrogen.
- Give reasons of the following statements:  
\* Heavy water is called heavy.  
\* Metallic hydrides form interstitial hydrides.  
\* Atomic or Nascent hydrogen is more reactive than molecular hydrogen.  
\* Alkali and Alkaline earth metal hydrides are called salt like hydrides.
- Write only balanced chemical equation of reaction of atomic hydrogen with:  
\* P    \* WO<sub>3</sub>    \* CuO    \* AgCl    \* O<sub>2</sub>
- Ionic hydrides are called true hydrides.
- Complete and balance following chemical equations:  

* Al <sub>4</sub> C <sub>3</sub> + H <sub>2</sub> O	→	* CO + NaOH	→
* NaBH <sub>4</sub> + H <sub>2</sub> O	→	* CO <sub>2</sub> + H <sub>2</sub> O	→
* H <sup>+</sup> + H <sub>2</sub> O	→	* CaC <sub>2</sub> + H <sub>2</sub> O	→
* NaH + C <sub>2</sub> H <sub>5</sub> OH	→		

#### CHAPTER NO. 3 :

- What happens when following compounds are heated: (Write only balanced chemical equation).  
\* Magnesite    \* Baking soda    \* Gypsum    \* Lime stone
- Describe the preparation of sodium carbonate by Ammonia-Solvay process? Draw the flow sheet diagram.
- Show chemical formulae of the following compounds:

- \* Carnalite \* Dolomite \* Plaster of Paris \* Water glass \* Washing soda
- \* Discuss extraction of sodium metal by electrolysis of molten NaCl. Why anode and cathode compartments are separated in the extraction of sodium? Draw diagram of the cell.
- Give reasons of the following statements:
  - \* Elements of group I-A and II-A are electropositive.
  - \* I-A group elements metals are powerful reducing agent.
  - \* Na is softer than Mg.
  - \*  $\text{Zn}(\text{OH})_2$  is soluble in excess of NaOH.
  - \*  $\text{Li}^+$  is smaller in size than its atom
  - \* Alkaline earth metals are more strongly hydrated than the alkali metal.
  - \* Elements of a group have same valence shell configuration.
  - \* Lithium and Beryllium markedly differ from other members of respective groups.
- Complete and balance following equations:
 

* $\text{Ca}(\text{OH})_2 + \text{NH}_4\text{Cl} \longrightarrow$	* $\text{CaCl}_2 + \text{Na}_2\text{CO}_3 \longrightarrow$
* $\text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2 \longrightarrow$	* $\text{Na} + \text{H}_2\text{O} \longrightarrow$
* $\text{CaOCl}_2 + \text{HCl} \longrightarrow$	* $\text{FeCl}_3 + \text{NaOH} \longrightarrow$
- Give a brief account and uses of Bleaching powder.

### REACTION CONVERSIONS

- Effect of heat on Magnesite, Baking sode, Gypsum, Lime stone.
- Calcium oxy chloride (Bleaching powder) in atmospheric  $\text{CO}_2$ .
- Chromium Oxide with KOH and  $\text{Br}_2$ .
  - \* Soda ash fused with Sand
  - \* Magnesium metal put in boiling water
  - \* Magnesite reacts with  $\text{H}_2\text{SO}_4$
  - \* Bleaching powder reacts with  $\text{Cl}_2$ -gas

### CHAPTER NO. 4 :

- What is Metallurgy? Write name and chemical formulae of three ores of aluminum. How pure aluminum is obtained from its bauxite ore.
- Write a note on: \* Boric acid \* Lead pigments \* Allotropic form of Sulphur
- How sulphuric acid is manufactured by contact process?
- Write the chemical formulae of the following:
 

* Laughing gas	* Lead sesquioxide	* Oil of Vitriol
* Cryolite	* Fluorspar	* Ammonal
* Aqua regia	* Iron Pyrites	* Potash Alum
		* Litharge
		* Oleum
		* Phosgene gas
- Give reasons why?
  - Electron population of 'Al' is less than that of 'B'.
  - Sulphuric acid has high boiling point and viscosity.
  - Sulphuric acid is strong dehydrating agent.
  - Diamond does not conduct electricity while graphite does.
- Write down the chemical equations for the following:
  - Sulphuric acid is a sulphonating agent
  - Auto oxidation-reduction of  $\text{Cl}_2$
  - Action of sulphuric acid on hot solution of Borax
  - Action of heat on boric acid
  - Aluminum metal reacts with  $\text{Fe}_2\text{O}_3$
  - Magnesium metal reacts with dilute  $\text{HNO}_3$
  - Copper metal reacts with hot concentrated  $\text{H}_2\text{SO}_4$
  - Concentrated sulphuric acid reacts with Oxalic acid
- What is an alloy? Write name, use and composition of any two alloys of aluminum with uses.
- Complete and balance following equations:
 

* $\text{FeCl}_3 + \text{H}_2\text{S} \longrightarrow$	* $\text{P} + \text{HNO}_3 \longrightarrow$
* $\text{S} + \text{H}_2\text{SO}_4 \longrightarrow$	* $\text{CO} + \text{Cl}_2 \longrightarrow$
* $\text{PbCrO}_4 + \text{NaOH} \longrightarrow$	* $\text{NO}_2 + \text{H}_2\text{O} \longrightarrow$
* $\text{Na}_2\text{B}_4\text{O}_7 \xrightarrow{\text{heat}}$	* $\text{HBO}_2 \xrightarrow{140^\circ\text{C}}$



**REACTION CONVERSIONS**

- Oxidizing action of chlorine.
- Chrome yellow with NaOH.
- Heating Colemanite with  $\text{Na}_2\text{CO}_3$ .
- Chromium Oxide with KOH and  $\text{Br}_2$ .

**CHAPTER NO. 5 :**

- Write chemical formulae of the following compounds:  
\* Copper pyrite \* Lunar Caustic \* Slag \* Blue stone \* Hypo
- Give reasons:
  - Anhydrous  $\text{CuSO}_4$  is white while Hydrated  $\text{CuSO}_4$  is blue.
  - Ligands are generally Lewis bases.
  - Copper metal obtained from bassmer converter is called blister copper.
  - $\text{H}_2\text{O}$  and  $\text{NH}_3$  are act as ligands while  $\text{H}_3\text{O}^+$  and  $\text{NH}_4^+$  are not.
  - Transition elements are Metallic in nature.
  - Transition elements formed coloured compound.
  - Most of the transition metals are para magnetic.
- Write down the chemical equations of the following:
  - Action of heat on Lunar caustic
  - Action of heat on Blue Vitriol
  - Reaction between  $\text{AgNO}_3$  and  $\text{NH}_3$
  - Reaction between  $\text{CuSO}_4$  and KI
- Complete and balance following equations:
 

* $\text{K}_2\text{Cr}_2\text{O}_7 + \text{KOH} \longrightarrow$	* $\text{CuFeS}_2 + \text{O}_2 \longrightarrow$
* $\text{K}_2\text{CrO}_4 + \text{H}_2\text{SO}_4 \longrightarrow$	* $\text{KMnO}_4 + \text{Heat} \longrightarrow$
- Write short note on: \* Photography \* Silvering of Mirror \* Lunar Caustic
- What is blister copper? Give the process of refining of blister copper.
- Write IUPAC names of the following complex compounds:
 

* $\text{K}_4[\text{Fe}(\text{CN})_6]$	* $[\text{Co}(\text{H}_2\text{O})_6]\text{SO}_4$	* $\text{KMnO}_4$	* $[\text{Pt}(\text{CN})_6]^{2-}$	* $\text{K}_2[\text{Ti}(\text{OH})_4]$
* $[\text{Co}(\text{en})_3]\text{Cl}_3$	* $\text{NH}_4[\text{Cr}(\text{NCS})_4(\text{NH}_3)_2]$	* $\text{Ni}(\text{CO})_4$	* $[\text{Cu}(\text{NH}_3)_5\text{Cl}]\text{NO}_3$	
* $\text{K}_2\text{Cr}_2\text{O}_7$	* $\text{Na}_2[\text{Zn}(\text{OH})_4]$			

**REACTION CONVERSIONS**

- Potassium dichromate with Sulphuric acid concentrated.
- Ionic equations showing that  $\text{KMnO}_4$  is oxidizing agent.
- Formation of chromyl chloride gas.
- Electrolytic oxidation of Potassium Magnate ( $\text{K}_2\text{MnO}_4$ ).
- Silver bromide with sodium thio sulphate.
- $\text{CuSO}_4$  added KI.
- Potassium magnate heated with  $\text{Cl}_2$ .

**PART-II (ORGANIC CHEMISTRY)****CHAPTER NO. 6 :**

- What are the natural sources of organic compounds. Discuss coke in detail.
- What do you understand by isomerism? Discuss its various types with suitable examples.
- Write a note on: \* Cracking \* Polymerization \* Refining of petroleum
- Write IUPAC names of the following organic compounds:
 

* $\text{CH}_3\text{-CH}(\text{C}_2\text{H}_5)\text{-CH}(\text{CH}_3)\text{-CH}_3$	* $\text{CH}_2=\text{CH-CH}_2\text{-C}(\text{CH}_3)=\text{CH}_2$
* $\text{C}_2\text{H}_5\text{-CH}(\text{CH}_3)\text{-CH}=\text{CH}_2$	* $(\text{CH}_3)_4\text{C}$ * $\text{CH-C-CH}_2\text{-CH-CH}_2$
- Draw structures of the following:
  - \* 1,3-pentadiyne
  - \* 1,3,5-hexatriene
  - \* 3-ethyl-2-methylpentane
  - \* iso-pentane

**CHAPTER NO. 7 :**

- Discuss MOT of Benzene or Ethene or Methane.
- What is Markownikoff's rule? Explain with suitable examples.
- Distinguish following pairs of organic compounds by simple chemical test:
  - \* Alkane and Alkene                      \* Aliphatic and Aromatic compound
  - \* Alkane and Alkyl halide              \* Ethane and Ethyne
  - \* Saturated & unsaturated hydrocarbon.
- What is Wurtz reaction? Write equations for the formation of hydrocarbon by the action of sodium metal on:
  - \* Methyl Iodide   \* Ethyl Chloride   \* 2-bromobutane   \* 2-methyl-2-iodopropane
- Give equation of the following:
  - \* Hydrolysis of Methyl Magnesium Iodide   \* Combustion of Ethane
  - \* Dehalogenation of vicinal-dichloroethane   \* Reaction of ethane/ethene with  $\text{KMnO}_4$
  - \* Acetylene reacts with water in presence of  $\text{HgSO}_4$  and  $\text{H}_2\text{SO}_4$  at  $75^\circ\text{C}$
  - \* Ethyne reacts with hot  $\text{KMnO}_4$    \* Oxidation of Benzene
  - \* Nitration of Benzoic acid                      \* Preparation of Benzene from Hexane
- Complete and balance following equations:
 

$\text{C}_2\text{H}_4 + \text{S}_2\text{Cl}_2 \longrightarrow$	$\text{C}_2\text{H}_2\text{Br}_2 + \text{KOH} \longrightarrow$	
$\text{C}_2\text{H}_5\text{Br} + \text{KOH} \longrightarrow$	$\text{C}_2\text{H}_2 + \text{KMnO}_4(\text{cold}) \longrightarrow$	
$\text{C}_2\text{H}_2 \xrightarrow{\text{organo-nickel catalyst}}$	$\text{C}_6\text{H}_6 + \text{CH}_3\text{COCl} \xrightarrow{\text{AlCl}_3}$	
- How will you prepare:
  - \* Benzene from Phenol                      \* Red solid from Ethyne
  - \* m-nitrotoluene from Benzene              \* Benzoic acid from Benzene
  - \* Benzene from ethane                      \* O-Chlorobenzoic acid from Phenol
- What objections are raised on Kekulé's structure and how is it defended?
- Discuss the acidic property of ethyne.
- Why benzene undergoes electrophilic substitution? Discuss stepwise reaction mechanism of nitration of benzene or Friedel Craft's alkylation..

**CHAPTER NO. 8 :**

- What are alkyl halides? How are they classified?
- What are Organometallic compounds? How Grignard's reagent prepare and how will you prepare following from Grignard's reagent:
  - \* Acetic acid   \* Ethane   \* Iso-propyl alcohol   \* Ter-butyl alcohol
- Explain the mechanism of  $\text{SN}-1$  and  $\text{SN}-2$  reactions with example.
- Give equations for the following reactions:
  - \* Reaction between  $\text{CH}_3\text{Cl}$  and  $\text{NaOH}$    \* Reaction between  $\text{C}_2\text{H}_5\text{Br}$  and  $\text{KOH}$  in presence of alcohol.
  - \* Reaction of Ter-butyl chloride with sodium cyanide
  - \* Reaction of Ethyl alcohol with Thionyl chloride
- What do you understand by Carbonium ion? Discuss stability of various types of carbonium ions.
- Define and discuss  $\beta$ -Elimination reactions with its reaction mechanism.
- Outline the stepwise reaction mechanism of the following:
  - \*  $\text{SN}^2$  reaction between bromoethane and  $\text{NaOH}$
  - \*  $\text{SN}^1$  reactions between 2-chloro-2-methyl propane and  $\text{NaCN}$
- Write only the equation of the following:
  - Action of  $\text{KHS}$  on  $\text{CH}_3\text{Br}$

**CHAPTER NO. 9 :**

- What are alcohols? Classify monohydric alcohols.
- With the help of balanced chemical equation explain acidic behavior of:
  - \* Phenol                      \* Vinegar                      \* Ethyne
- Give equation of the following:
  - \* Reduction of Acetone                      \* Esterification
  - \* Nitration of Phenol with concentrated Nitric acid



- \* Formation of Oxime from Formaldehyde
- \* Ether formation from Ethyl alcohol
- \* Acetyl chloride reacts with Acetic anhydride
- \* Acetic acid heated at  $500^{\circ}\text{C}$  in presence of  $\text{MnO}_2$
- Give a brief account on 'Cannizaro's reaction'.
- Draw the structure and give IUPAC names of following compounds:
  - \* Adipic acid \* Valeric acid \* TNT \* Catechol \* Glucose
  - \* Di-isopropyl Ether \* Oxalic acid \* Formalin \* Wood Spirit
- Complete and balance following equations:
 

$\text{C}_2\text{H}_5\text{OH} + \text{PCl}_3$	$\longrightarrow$	$\text{C}_2\text{H}_5\text{Cl} + \text{Ag}_2\text{O}$	$\longrightarrow$
$(\text{HCOO})_2\text{Ca} + \text{Heat}$	$\longrightarrow$	$\text{HCHO} + [\text{Ag}(\text{NH}_3)_2]\text{OH}$	$\longrightarrow$
$\text{CH}_3\text{COCH}_3 + \text{I}_2 + \text{Na}_2\text{CO}_3$	$\longrightarrow$	$\text{CH}_3\text{COCl} + \text{NH}_3$	$\longrightarrow$
- Define Fermentation: How can ethanol be prepared from molasses by fermentation?
- What happens when:
  - Ethanol, in excess, is heated with  $\text{H}_2\text{SO}_4$  (conc.)
  - Ethanol is heated with ethanoic acid in the presence of  $\text{H}_2\text{SO}_4$  (conc.)
- How is methyl alcohol prepared from water gas.
- How will you obtain:
  - Acetaldehyde from ethyl alcohol
  - Acetone from acetic acid
- How is acetic acid converted into:
  - Amide
  - Ester
- Discuss Aldol condensation.

### CHAPTER NO. 10 :

- Define following terms:
  - \* Amino acids \* Lipids \* Rancidification \* Saponification
- What are carbohydrates? How are they classified? Give its biological importance.
- What are enzymes? Discuss its classification.
- Differentiate between: \* Oil and fats \* Reducing and Non-reducing sugars

### CHAPTER NO. 11 :

- What are plastics? What is the difference between Thermoplastics and thermosetting plastics? Write the structure of Bakelite with its two uses.
- Write a note on: \* Glass \* Paints \* Fertilizers

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### COMPUTER SCIENCE – XII

#### Important Information:

Information for MCQs (Section – A)

It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 25 years and do preparation of all MCQ's which are provided by your teacher.

#### Option I (Programming Using C) Section A

“Solve all MCQs of Five Years.

#### Section B (Short Questions Answers)

1. What are the main steps to develop a program?
2. Write the programming error which is detected at the time of compilation
3. What is meant by case-sensitive language? Give one example.
4. Write the basic Structure of a C Program
5. What is “#define”. Give one example.
6. What is IDE (Integrated Development Environment)
7. Define the Rules for declaring Identifiers.
8. Define any three Escape sequences in C with examples.
9. Define any three Format Specifiers / Conversion with examples
10. Write the Precedence OR Hierarchy of Operators in C
11. Define any two Standard Library Functions Or Built in functions
12. What is address of operator (ampersand &)?
13. Explain Unconditional control transfer (goto).
14. Define “if-else” selection/conditional control structures in C
15. What is a function? Write its three uses.
16. What is a Function Prototype/Declaration?
17. Define any three File opening modes
18. What is a data file?
19. Define fscanf() function
20. Define fclose() function
21. What is a binary file?
22. What are the Benefits/advantages/uses of Database?
23. Define Primary Key (PK)
24. Define Foreign Key (FK)
25. Who is a Data Base Administrator (DBA)? Enlist his three responsibilities
26. What is a Table Relationship? Name different types of relationships in Database
27. What are the Components of DBMS?

Solve 5 years conversion of mathematical expression into “C” expressions

#### Differentiate Between

1. Switch and else-if
2. While and do while loop
3. Break and continue
4. Local and Global variable
5. Primary key and Foreign key



## Debug the program (Remove syntax errors)

<pre> Main() int age ; float height ; scanf("%c", age); scanf("%d",&amp;height); printf("\n %s",age); printf("\n %2.1f",height); </pre>	<pre> void main(void) {     int i , a=0;      for(i==1;i&lt;=10 “; i++)      printf("\n %d",i); } </pre>
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## Write the output of the following programs

<pre> void main(void) {     int i,j;      clrscr();     for (i=1;i&lt;=5;i++)     {         for (j=1; j&lt;=i;j++)             printf("%d",j);          printf("\n");     }     getch(); } </pre>	<pre> void main(void) {     int i;     double number, sum = 0.0;     for(i=1; i &lt;= 10; ++i)     {         printf("Enter a n%d: ",i);         scanf("%lf",&amp;number);         if(number &lt; 0.0)         {             break;         }         sum += number; // sum = sum + number;     }     printf("Sum = %.2lf",sum); } </pre>
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## Section C

## (Detailed Questions Answers)

1. What is data? Explain basic data types in "C".
2. What is a Repetitive Control Structure (Loop)? Define its different types of in "C" with syntax.
3. What is meant by I/O functions? Explain any two I/O functions in "C" with an example.
4. Explain switch with syntax and an example.
5. Explain the basic operators used in "C" programs.
6. What are the steps to write a program/software?
7. What is a database? Write its advantages.
8. Explain various data types used in MS ACCESS.
9. What is a Database Model? Explain its different types
10. Explain the main Objects in MS ACCESS? Explain
11. Explain the Components of DBMS.

## Some important programs

1. Factorial of number (with and without function)
2. Find the largest number among three inputted numbers
3. Table of any inputted number.
4. List of Even or Odd numbers
5. Find the sum and average of five entered numbers.

Write a program using any loop to draw these patterns.

(a)	(b)	(c)
*****	1	12345
*****	22	1234
*****	333	123
*****	4444	12
*****	55555	1

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

ENGLISH – XII

### SECTION "A" (COMPULSORY) (MULTIPLE CHOICE QUESTIONS)

Note: Secure full marks through reading the literature i.e. Prose, Poems and Plays thoroughly.

### SECTION "B" (SHORT-ANSWER QUESTIONS)

#### Sub Section (I) Intermediate English Book II

1. How does James Jeans justify his assertion that the universe appears to be actively hostile to life like our own?
2. Give a brief character sketch of the killer or the justify killing with reference to the play Twenty Minutes with Mrs. Oakentubb.
3. Whose suitcase plays vital role in taking revenge in the play "Twenty Minutes with Mrs. Oakentubb? Discuss.
4. Why did the meeting with Korean girl give the man a purpose to live in Twenty Minutes with Mrs. Oakentubb?
5. Why does Bertrand Russel consider it useless to resist industrialization?
6. What do you understand by the term "The Spinning Wheel"? Did Ghandi remain successful in restoring the Spinning Wheel?
7. What do you understand by the term "Cosmopolitanism"?
8. What advice does Bertrand Russell give to the Eastern nations?
9. How did Lieutenant Colonel or Dr. Mallory behave in the story "The Day the Dam Broke"?
10. What is the main theme of the lesson entitled The Day the Dam Broke?  
Or What do you learn about human behaviour from The Day the Dam Broke?
11. How did Thurber's mother cope with the situation in The Day the Dam Broke?
12. What do you know about Liaquat Ali Khan with special reference to his speech under the subject of "Pakistan and the Modern World?"
13. What main differences did Liaquat Ali Khan point out between the Muslims and the Hindus beliefs and attitudes in his speech?
14. What purpose, in your opinion is served by beginning of the play "Act III of the Silver Box" with the case of the Livens girls, which has nothing to do with the main story?
15. What system is criticized by the author in the lesson "Act III of the Silver Box?"
16. Was the trial of Jones fair? State the reasons.
17. Who was Schopenhauer? What was his famous saying according to the lesson "The World as I See It"?
18. What is Einstein's attitude towards war? What forces or elements does Einstein blame for the persistence of war?
19. Why was the story of Hans and the Miller was applicable to the Water-rat?
20. What reasons do you have to say that the Miller was a selfish person? What was the worst example of his nature?  
Or Was the Miller best friend of Hans? Answer with reasons.

#### Sub Section (II) Selections from English Verses

1. What does Wordsworth guess about the theme of the girl's song in the poem, The Solitary Reaper?
2. Describe the incident that inspired Wordsworth to compose the poem, The Solitary Reaper.
3. What is the central idea of the poem, The Seven Ages of Man?
4. What is the status of men and women in this world according to William Shakespeare?
5. State the seven ages of man and briefly describe the second, third, fourth, fifth and seventh stages in The Seven Ages of Man?
6. Give the main idea of the poem, The Man of Life Upright.



7. Why does the heart of an upright man be guiltless and free from all dishonest deeds?
8. Why does the heart of an upright man not feel any thought of vanity?
9. How did Samson take revenge from his enemies?
10. Why does Alexander Pope consider death as a great teacher?
11. Why does the poet ask man to make hope for a better future in the poem "Lines from an Essay on Man"?
12. What is meant by Elegy? Describe the main idea of the poem An Elegy Written in a Country Churchyard.
13. What things of beauty did Keats find most inspiring in the poem, Endymion?
14. "A THING OF BEAUTY IS A JOY FOREVER". Explain the line in your own words.
15. Describe the moral of the poem "Say Not the Struggle Naught Availeth"?
16. What message does the poet, Alfred Tennyson, want to convey through the symbolic character of Ulysses?
17. What message have you extracted from the poem Lost Star, composed by G. Allana?

### Sub Section (III) Prisoner of Zenda

1. How did Black Michael kidnap the King? What precaution did he take to keep him safely imprisoned?
2. "Rupert is really a dare-devil". Comment.
3. Who persuaded Rudolf Rassendyll to impersonate the King and why?
4. Give an account of the coronation taken place at the Cathedral and describe Rassendyll's behavior at it.
5. Why did Antonette de Mauban send a letter to Rudolf Rassendyll? Describe the letter.
6. What did Antonette de Mauban tell Rudolf Rassendyll in the meeting with him at the summerhouse?
7. Briefly narrate the "Tea Table Incident".  
Or Describe Rudolf's encounter with armed men during his meeting with de Mauban.
8. What arrangement did Colonel Sapt and Fritz make for restoring the King's popularity among the people of Ruritania?  
Or Who arranged the ball and why? And what was the outcome of that arrangement?
9. Between Black Michael and Rupert of Hentzau which character strikes you as more devilish? Give reasons.
10. What does Rudolf Rassendyll feel after his meeting with Princess Flavia at the ball?
11. What instructions did Rudolf Rassendyll give to Marshall Strakencz as the King?
12. How did Rudolf Rassendyll make a reconnaissance to the Castle of Zenda in order to view the plan of attack?  
Or What was the Jacob's ladder? Give an account of the first attempt of Rassendyll at it?
13. How did Johann help Rudolf Rassendyll to prepare his final plan of attack at the Castle of Zenda?
14. What plan does Rudolf prepare to attack the Castle of Zenda after receiving information from Johann?
15. How did Rassendyll liberate the real king from the prison?
16. How was Black Michael killed unexpectedly?
17. How does Princess Flavia learn that Rudolf Rassendyll is not the real King? And how did she behave after that?
18. Elaborate the chapter "If Love Were All".
19. Give an account of Rupert's attempt on Rassendyll life at Tarienheim?
20. How did Rassendyll liberate the real king from the prison?
21. Compare and contrast Rudolf Rassendyll and Rudolf Elphberg. Support your answer with evidence from the novel.
22. Show how Flavia sacrifices love and ambition to duty and honor.
23. "Heaven does not always make the right men kings!" said Fritz. Do you think Rassendyll deserves to be the king of Ruritania? If so, why?
24. Colonel Sapt's Wisdom made it impossible for Black Michael to get the throne of the Ruritania Elucidate.
25. Johan plays a vital role in the plot of the novel. Refute or justify your answer briefly.



**Sub Section (IV) Grammar****1. Phrasal verbs:**

back up: back out: bear down: bear out: bear up: bear with: blow out: blow up: break up: break down: break in / into: break out: break off: bring forth: bring about: bring down: bring out: bring up: call for: call in: call off: call on: call at: carry off: carry out: carry on: come round: come over: come about: come cross: come off: come on: come up: drop out: fall for: fall off: fall out: fall through: fall upon: get across: get on: get over: get round: get through: get up: give in: give out: give up: give way: give away: go about: go after: go down: go into: go on: go through: hold on: hold out: hold back: hold up: keep back: keep down: keep on: keep to: lay by: lay down: lay down: look back: look after: look: down: look for: look into: look over: look on: look out: look to: look up: look up to: make after: make for: make away: make out: make up: make fast: make off: pass away: pass for: pass off: pass through: pass out: put across: put by: put down: put forth: put off: put on: put out: put through: put up: put up with: run across: run after: run down: run out: run over: run on: see about: see off: see through: see to: set against: set about / on: set in: set out / off: set up: set to: set aside: show off: stand up: stand by: stand up: take down: take out: take after: take in: take on: take up: take off: throw away: throw up: turn against: turn away: turn down: turn on: turn off: turn out: turn up: turn in: turn upon:

**2. Homophones or pair of words:**

Which, Witch: Banned, Band: Missed, Mist: Plain, Plane: Mail, Male: Mind, Mined: Find, Fined: Weather, Whether: Father, Farther: Oh, Owe: Flower, Flour: Thrown, Throne: Principal, Principle: Where, Wear: Weight, Wait: Weak, Week: Heard, Herd: Berry, Bury: Worn, Warn: Break, Brake: Sail, Sale: Pail, Pale: Scent, Cent: Sent, Piece, Peace: Scene, Seen: Straight, Strait: Knight, Night: Side, Sighed: Stationery, Stationary: Meet, Meat: Advice, Advise: Sight, Site: All, Awl: Ail, Ale: Altar, Alter: Aloud, Allowed: Ascent, Assent: Adapt, Adopt Birth, Berth Bare, Bear Bail, Bale Ball, Bawl: Beech, Beach: Beat Beet: Bred, Bread: Blew, Blue: Carat, Carrot: Born, Borne: Bolder, Boulder: Boarder, Border: Ceiling, Sealing: Cereal, Serial: Cymbal, Symbol: Cue, Queue Council, Counsel: Carrier, Career: Canvas, Canvass: Dual, Duel: Disease, Decease: Die, Dye: Fair, Fare: Flew, Flue: Grate, Great: Lessen, Lesson: Loose, Lose: Not, Knot: Wring, Ring: Affect, Effect: Allusion, Illusion: Allude, Elude: Amend, Emend: Apposite, Opposite: Apprise, Appraise: Biannual, Biennial: Cemetery, Symmetry: Collision, Collusion: Coma, Comma: Contagious, Contiguous: Corporal, Corporeal: Corps, corpse: Confirm, Conform: Dairy, Diary: Decease, Disease: Diseased, Deceased: Descent, Decent: Defy, Deify: Elicit, Illicit: Emigrant, Immigrant: Eminent, Imminent: Enervate, Innervate: Enumerable, Innumerable: Exorcise, Exercise: Ghostly, Ghastly: Heaven, Haven: Idle, Ideal: Ingenious, Ingenuous: Moan, Mourn: Ordinance, Ordnance: Petrol, Patrol: Potable, Portable: Quiet, Quite: Spacious, Specious: Thrash, Thresh: Urban, Urbane: Venal, Venial: Wreath, Wreathe: Wreck, Wreak:

**3. Words/Phrases meanings**

Memorize unfamiliar or new words or phrases(vocabularies) provided or discussed during the session for English to English meaning used in the given literature i.e. Prose, Poems and Novel.

**SECTION “C”****(DETAILED-ANSWER QUESTIONS)**

Note: Attempt all questions from this section. All questions carry equal marks.

1. **ESSAY**\*Census\*Impact of Social Media \*Science - a curse or a blessing \*Inflation  
\*Status of Women in Islam \* Terrorism- a worldwide issue \*PSL 2018\*Natural  
Disaster \*Muslim Unity
2. **NARRATION**  
Practice as directed in the class.
3. **COMPREHENSION**  
Practice, as directed in the class.



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### MATHEMATICS – XII

#### Important Information:

Information for MCQs (Section – A)

It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 10 years and do preparation of all MCQ's which are provided by your teacher.

#### CHAPTER NO. 1 (Function and Limits)

- Ex: 1.3 Q. 6, 7, 8  
 Ex: 1.5 Q. 4, 5, 6, 7  
 Ex: 1.6 Q. 12, 13, 14, 15, 16, 17  
 Ex: 1.7 Q. 3, 6, 7, 8, 9, 10, 12, 14, 15

#### CHAPTER NO. 2 (The Straight Line)

- Ex: 2.1 Q. 4, 14  
 Ex: 2.2 Q. 8, 9, 10, 12, 13, 14, 17, 19, 23, 24  
 Ex: 2.3 Q. 1, 5, 7, 9, 10  
 Ex: 2.4 Q. 9, 10, 11, 12, 13, 16, 18, 19, 20  
 Ex: 2.5 Q. 5, 6, 7, 9, 10, 11, 12, 13, 15, 16(iii), 17, 19, 20

#### CHAPTER NO. 3 (The General Equations of Straight Lines)

- Ex: 3.1 Q. 1(i), 7, 10, 11, 14, 15, 17, 18, 19, 21(ii)  
 Ex: 3.2 Q. 2, 4, 7, 8, 13, 14, 15, 17, 19, 20, 21, 22, 23  
 Ex: 3.3 Q. 6, 7

#### CHAPTER NO. 4 (Differentiability)

- Ex: 4.1 Q. 1(iv,v,vi,vii,viii,ix)  
 Ex: 4.2 Q. 5  
 Ex: 4.3 Q. 6, 7, 8, 9  
 Ex: 4.4 Q. 4, 5, 6, 13

#### CHAPTER NO. 5 (Application of Differential Calculus)

- Ex: 5.1 Q. 2, 3, 4  
 Ex: 5.2 Q. 2, 3, 5, 7  
 Ex: 5.3 Q. 2, 6, 7, 11, 15, 17

#### CHAPTER NO. 6 (Antiderivatives)

- Ex: 6.1 Q. 14, 20  
 Ex: 6.3 Q. 1 (xiv, xv), Q. 3 (xiv, xv, xvi)  
 Q. 5 (iv, v, viii, ix, xi, xii, xiii)  
 Ex: 6.4 Q. 9, 11, 12  
 Ex: 6.5 Q. 1, 2, 4, 5, 6, 7, 8  
 Ex: 6.6 Q. 4, 8, 10  
 Ex: 6.7 Q. 1 (iii, iv, v, vi, ix), 3(iii, xi)  
 Ex: 6.9 Q. 5, 6, 14  
 Ex: 6.10 Q. 4, 5, 6, 7, 11, 12  
 Ex: 6.11 Q. 16, 17, 18, 19, 20, 21, 22, 23, 24, 25  
 Misc. Ex. Q. 23

#### CHAPTER NO. 7 (Circle)

- Ex: 7.1 Q. 3, 8, 10, 14, 15, 16, 17, 18, 20  
 Ex: 7.2 Q. 3, 4, 7, 8, 10, 12, 14, 20, 21, 22

#### CHAPTER NO. 8 (Parabola, Ellipse and Hyperbola)

- Ex: 8.1 Q. 2 (v, vi), 5, 6,  
 Ex: 8.2 Q. 1, 2, 3, 5, 7, 8, 9  
 Ex: 8.3 Q. 1, 2, 4  
 Ex: 8.4 Q. 1, 2, 3, 6, 13, 16, 17, 18, 21, 22, 30

#### CHAPTER NO. 9 (Vectors)

- Ex: 9.1 Q. 5  
 Ex: 9.3 Q. 11, 12, 13  
 Ex: 9.4 Q. 5  
 Ex: 9.5 Q. 3, 9, 10, 11  
 Ex: 9.6 Q. 1, 2, 3, 4, 5  
 Ex: 9.7 Q. 2, 5, 6

# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### PAKISTAN STUDIES-XII

#### Section- B (Short Questions)

- (i) Name four castes of Hindu society and explain them briefly.
- (ii) Name four sufi orders of Muslim society and explain them briefly.
- (iii) Explain the difference between Two Nation Theory and Ideology of Pakistan.
- (iv) Write four points of Quaid-e-Azam's fourteen points.
- (v) What was the scheme of Cabinet Mission Plan?
- (vi) Write few sentences on the role of Sindh or Punjab in the struggle for Independence.
- (vii) Write four important points of Indian Independence Act 1947.
- (viii) What was the Indus Basin Treaty?
- (ix) Write four important features of Objective Resolution 1949.
- (x) Name Climatic regions of Pakistan and explain briefly.
- (xi) Write eight sentences about Geo-political importance of Location of Pakistan.
- (xii) Write four differences between the Northern and Western mountains of Pakistan.
- (xiii) Write the aims and objects of All India Muslim League.
- (xiv) Write eight sentences about Indus Valley Civilization.
- (xv) Give differences between Hindu and Islamic Societies.
- (xvi) Write a brief note on any regional language of Pakistan.
- (xvii) Write eight sentences about importance of economic planning in Pakistan.
- (xviii) Write a brief note on Non-Aligned Movement.
- (xix) Write four important natural resources of Pakistan.
- (xx) State any four Agricultural Problems of Pakistan.
- (xxi) Describe any five differences between in Rural and Urban Society of Pakistan.
- (xxii) Mention four salient features of culture of Pakistan.
- (xxiii) Write eight sentences on importance of Urdu as National language.

#### Section- C (Detailed Questions)

1. Describe the political, social, cultural and religious impacts of Islam on Hindu society.
2. Elaborate Ideology of Pakistan in the light of the sayings of Quaid-e-Azam Muhammad Ali Jinnah.
3. Discuss important political events during 1930 to 1947.
4. Discuss the Initial problems of Pakistan.
5. The role of Quaid-e-Azam Muhammad Ali Jinnah in consolidation of Pakistan.

OR

- The role of Quaid-e-Azam as Governor General of Pakistan.
6. Why did the Muslim of sub-continent demand a separate home land?
7. Give Islamic Provisions in constitution of Pakistan 1973.
8. Describe reasons of separation of East Pakistan from West Pakistan in 1971.
9. What is cultural heritage of Pakistan? Explain in the light of historical perspective.
10. What are the fundamental principles of the foreign policy of Pakistan?



# آدم جی کوچنگ سینٹر

تیاری پرچہ برائے امتحانات ۲۰۱۷-۲۰۱۸

مطالعہ پاکستان۔ بارہویں جماعت (سائنس گروپ)

اہم ہدایات برائے حصہ الف (کثیر الانتخابی سوالات)

- ۱۔ ہندوؤں کی چار ذاتوں کے نام لکھیں اور مختصر اوضاحت کریں۔
- ۲۔ تصوف کے چار سلسلوں کے نام تحریر کریں اور مختصر تعارف بھی پیش کریں۔
- ۳۔ دو قومی نظریہ اور نظریہ پاکستان کے درمیان فرق واضح کریں۔
- ۴۔ قائد اعظم محمد علی جناح کے چودہ نکات میں سے چار نکات تحریر کریں۔
- ۵۔ کابینہ مشن منصوبہ کیا تھا۔
- ۶۔ جدوجہد آزادی میں سندھ یا پنجاب میں سے کسی ایک کے کردار کو چند جملوں میں واضح کریں۔
- ۷۔ قانون آزادی ہند کے کوئی چار اہم نکات تحریر کیجئے۔
- ۸۔ سندھ طاس معاہدہ کیا تھا؟
- ۹۔ قراردادِ مقاصد ۱۹۴۹ء چار خصوصیات بیان کریں۔
- ۱۰۔ پاکستان کے موسمیاتی خطوں کے نام لکھیں اور مختصر اوضاحت کیجئے۔
- ۱۱۔ پاکستان کے محل وقوع کی اہمیت پر آٹھ جملے تحریر کریں۔
- ۱۲۔ پاکستان کے شمالی پہاڑی سلسلوں اور مغربی پہاڑی سلسلوں کے درمیان چار فرق تحریر کیجئے۔
- ۱۳۔ آل انڈیا مسلم لیگ کے قیام کے اغراض و مقاصد بیان کریں۔
- ۱۴۔ وادی سندھ کی قدیم تہذیب پر آٹھ جملے تحریر کریں۔
- ۱۵۔ ہندو اور مسلم معاشروں کے درمیان چار فرق واضح کریں۔
- ۱۶۔ پاکستان کی کسی ایک علاقائی زبان پر مختصر نوٹ تحریر کریں۔
- ۱۷۔ پاکستان میں معاشی منصوبہ بندی کی اہمیت پر آٹھ جملے تحریر کیجئے۔
- ۱۸۔ غیر وابستہ ممالک کی تحریک پر مختصر نوٹ لکھیں۔
- ۱۹۔ پاکستان کے چار اہم قدرتی وسائل تحریر کریں۔
- ۲۰۔ پاکستان کے چار زرعی مسائل تحریر کریں۔
- ۲۱۔ پاکستان کی دیہی اور شہری زندگی کے درمیان چار فرق اجاگر کیجئے۔
- ۲۲۔ پاکستانی ثقافت کی چار نمایاں خوبیاں تحریر کریں۔
- ۲۳۔ قومی زبان کی حیثیت سے اردو کی اہمیت پر آٹھ جملے تحریر کیجئے۔

## Section: 'C'

- ۱۔ ہندوستانی معاشرہ پر اسلام کے سیاسی، سماجی، مذہبی اور معاشی اثرات کا جائزہ لیجئے۔
- ۲۔ نظریہ پاکستان کی وضاحت قائد اعظم کے بیانات کی روشنی میں جائزہ لیجئے۔
- ۳۔ ۱۹۳۰ء سے ۱۹۴۷ء تک ہندوستان میں ہونے والے اہم سیاسی واقعات کا احاطہ کیجئے۔
- ۴۔ قیام پاکستان کے بعد پاکستان کو درپیش ابتدائی مسائل کا جائزہ لیں۔
- ۵۔ استحکام پاکستان کے لیے قائد اعظم محمد علی جناح کی خدمات کا احاطہ کیجئے۔ یا بحیثیت گورنر جنرل قائد اعظم کے کردار کا جائزہ لیں۔
- ۶۔ برصغیر کے مسلمانوں نے علیحدہ وطن کا مطالبہ کیوں کیا؟
- ۷۔ آئین پاکستان ۱۹۷۳ء کی اسلامی دفعات تحریر کریں۔
- ۸۔ ۱۹۷۱ء میں مغربی پاکستان سے مشرقی پاکستان کی علیحدگی کے اسباب بیان کیجئے۔
- ۹۔ پاکستان کا ثقافتی ورثہ کیا ہے؟ تاریخ کے تناظر میں وضاحت کیجئے۔
- ۱۰۔ پاکستان کی خارجہ پالیسی کے بنیادی اصول کیا ہیں۔

\*\*\*\*\*



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017-2018

### PHYSICS – XII

#### Important Information:

1. \*\* means that topic is very important for Section “B”.
2. \* means that topic is important for Section “C”.
3. Without any sign means that you have to prepare to decrease the risk factor.
4. Information for MCQs (Section – A)  
It is not possible to suggest important MCQs but for the preparation of MCQs read your syllabus book, attempt all MCQ's of last 25 years and do preparation of all MCQ's which are provided by your teacher.

### CHAPTER 11: Heat

#### Questions & Scientific Reasons:

1. \*\*Define heat engine. Write & explain four different operations of Carnot Engine. Draw its graph and derive formula for its efficiency.
2. \*\*Define  $C_p$  and  $C_v$ . Also prove that  $C_p - C_v = R$ .
3. \*Define “ $\alpha$ ” and “ $\beta$ ”, prove that  $\beta = 3\alpha$
4. \*\* State & explain First law of thermodynamics. On the basis of this law, explain different process.
5. \*Calculate the value of  $C_p$  and  $C_v$  for monoatomic gas. Why  $C_p$  is greater than  $C_v$ ?
6. \*Show that the absolute temperature of an ideal gas is directly proportional to the average translational kinetic energy of the molecules.
7. \*What do you mean by Entropy? Describe the second law of thermodynamics in terms of Entropy.
8. When a block with a hole in it is heated, why does the material around the hole not expand into the hole and make it small?
9. \*What happen to the temperature of room in which an air conditioner is left running on a table in the middle of the room?
10. \*Define linear expansion. How does the concept of linear expansion help the fabrication of bimetallic strips? Explain the working of bimetallic strips in a thermostat.
11. \*State two statements of second law of thermodynamics. Also prove that both are equivalent.
12. \*Define heat engine. Prove that efficiency of a heat engine always be less than 100%.

**Problems Exercise:** Problem #: \*11.1, \*11.3, \*11.4, \*11.6, \*11.9 and \*11.11

**Solved Example:** Example #: \*11.2, \*11.5,

**Past Papers:** \*2006 Q1 (d), 2009 Q2 (d), 2008 Q1 (d), 2008 Q2 (d), 2007 Q2 (d)

### CHAPTER 12: Electrostatics

#### Questions and Scientific Reasons:

1. \*\*State and prove Gauss's Law. By using this law, derive formula for field intensity of large +ve charge sheet or spherical surface.
2. \* Derive an expression for absolute electric potential.
3. Explain electric flux. Under what conditions will the flux through the surface be? (i) zero (ii) maximum

**Problems Exercise:** Problem #: 12.1, \*12.2, 12.6, \*12.9, \*12.10, \*12.11, \*12.15, \*12.17, \*12.19  
\*12.20, \*12.22

**Solved Example:** Example #: \*12.3

**Past Papers:** 2009 Q3 (d), 2008 Q3(d) and 2006 Q3 (d); 2015 Q2 (x)

**Extra Question:** \*Question of Gauss's law by using  $E = F/q$  and  $E = \sigma/2\epsilon_0$

### CHAPTER 13: Current Electricity

#### Questions and Scientific Reasons:

1. \*Define potential difference and electromotive force. Both are measured in volts. What is the difference between these concepts? Also derive the relevant expression.
2. \*State Ohm's law. How is the resistance of the conductor related to its dimensions?



**Problems Exercise:** Problem #: 13.2, \*13.7, \*13.8, \*13.10, \*13.12, \*13.16, \*13.17, \*13.18, \*13.19, \*13.21 and \*13.22.  
**Solved Example:** Example #: 13.5, 13.7, 13.10 and 13.14  
**Past Papers:** 2009 Q6 (d) and 2008 Q4 (d); 2012 Q2 (i)

**CHAPTER 14: Magnetism and Electromagnetism****Questions and Scientific Reasons:**

1. \*\* Explain e/m ratio, J.J. Thomson experiment.
2. \*\*What is transformer? On what principle does it work? What is the difference between a step-up, step-down and unity transformer? Establish a mathematical relation among different characteristics of a transformer.
3. \*\*Draw a labeled diagram of an AC generator and derive expression for the alternating voltage produced.
4. \*\*State Faraday's law and Lenz's law. By using this law explain self or mutual induction.
5. \*Explain induced torque in a rectangular coil. Description required.
6. \*Why is a soft iron core used in a transformer?
7. \*What is flux density and how it is related to the number of lines of induction expressed in webers?
8. \*Define Motional emf and derive the relevant formula.

**Problems Exercise:** Problem #: \*14.1, 14.4, \*14.6, \*14.7, \*14.11, \*14.12, \*14.14, \*14.15  
**Solved Example:** Example #: 14.3, 14.6, 14.9 and 14.10.  
**Past Papers:** \*2008 Q5 (d), 2009 Q4 (d), 2007 Q4 (d), 2006 Q5 (d); 2013 Q2 (iv); 2012 Q2 (ii); 2011 Q2 (xiii)

**Extra Question:**

1. \*Numerical of ampere's law by using  $B\ell = \mu_0 NI$
2. \*Numerical of motional emf by using formula  $V = Bv\ell$

**CHAPTER 15: Electrical Measuring Instruments****Questions and Scientific Reasons:**

1. \*/\*\*Define balanced Wheat Stone Bridge. Also prove that  $\frac{R_1}{R_2} = \frac{R_3}{R_4}$ .
2. \*With the help of diagram describe, how a galvanometer is converted into an Ammeter and derive an expression for shunt resistance  $R_s$ .
3. \*With the help of diagram describe, how a galvanometer is converted into a Voltmeter and also derive an expression for high resistance ( $R_v$ ).

**Problems Exercise:** Problem #: \*15.2, 15.3, \*15.5 and \*15.7  
**Solved Example:** Example #: 15.1  
**Past Papers:** 2006 Q6 (d), 2007 Q5 (d), 2008 Q6 (d)

**CHAPTER 16: Electromagnetic Waves and Electronics:****Questions and Scientific Reasons:**

1. \*What is semiconductor? Differentiate between intrinsic and extrinsic semiconductors.
2. \*How are p-type and n-type semiconductors made? Explain with the help of a diagram the forward and reverse biasing of P-N junction.
3. \*Explain why are the light waves able to travel through vacuum, where as sound waves can not?
4. \*Define rectifier. Write its types. Explain half wave and full wave rectification.

**CHAPTER 17: Advent of Modern Physics****Questions and Scientific Reasons:**

1. \*Explain why is Compton effect not observable with visible light.
2. \*In the photo electric effect the energy of a photoelectron is less than that of incident photon. Explain.
3. \*How de Broglie's hypothesis did help to explain the stability of the atom?
4. \*\* Define photoelectric effect. Write down its experimental observations. Explain Einstein's equation for photoelectric effect.



5. \*What are Black Body and Black Body radiation? State the laws governing the Black Body radiation.
6. \*\*State and explain Compton Effect. Derive formula to shift in wave length of light.

**Problems Exercise:** Problem #: \*17.3, \*17.4, \*17.5, \*17.6, 17.8, \*17.10, \*17.12, \*17.13, \*17.15  
**Solved Examples:** 17.2, 17.3, 17.13 and 17.14.  
**Past Papers:** 2006 Q7(d), 2008 Q8 (d), 2009 Q7 (d); 2013 Q2 (vi); 2011 Q2 (i)

**Extra Numerical:**

1. \*Light of wave length  $4000\text{\AA}$  to  $7000\text{\AA}$  falls on metal surface where its work function is  $0.54\text{eV}$ . Calculate stopping potential, velocity of photo electrons and will electrons be emitted or not?

**CHAPTER 18: The Atomic Spectra**

**Exercise:** Problem #: \*18.1, \*18.2, \*18.3, \*18.4(a) and \*18.5  
**Solved Example:** Example #: 18.1, 18.3 and 18.4  
**Past Papers:** \*2008 Q8 (d)

**Extra Numerical:**

1. \*Calculation of shortest and longest wave length of different hydrogen series.
2. \*Calculation of wavelength and wave number when hydrogen atom be ionized.

**CHAPTER 19: The Atomic Nucleus****Questions and Scientific Reasons:**

1. \*\*Define radioactivity. Explain the law of radioactive decay. Write the equations showing the change in the parent nuclei by  $\alpha$ ,  $\beta$  and  $\gamma$  decay.
2. \*Define nuclear fission reaction. Explain nuclear fission chain reaction.
3. \*It is more difficult to start fusion reaction than fission, why?
4. \*Is it possible that fusion of two small nuclei may occur without collision at extremely high energy?
5. \*Can a conventional fission reactor ever explode like a bomb? Why?

**Problems Exercise:** Problem #: \*19.4, \*19.5, \*19.6, \*19.7, \*19.8 and \*19.10  
**Solved Example:** Example #: 19.6  
**Past Papers:** 2009 Q8 (d) and 2010 Q2 (viii)

**CHAPTER 20: Nuclear Radiations****Questions and Scientific Reasons:**

1. \*\*Describe the construction and working of Geiger Muller Counter, what is the difference between Wilson cloud chamber & Geiger Counter.
2. \*Name the different electromagnetic radiations which are capable of producing ionization of atoms? By what process do they usually ionize?
3. \*Lead is heavy and denser than water, yet water is effective shield against neutrons? Explain why?

# آدم جی کوچنگ سینٹر

تیاری پرچہ برائے امتحانات ۲۰۱۷-۲۰۱۸

اردو لازمی۔ بارہویں جماعت

## حصہ ”ب“ (مختصر جواب کے سوالات)

[۱۰]

سوال نمبر (۲): مندرجہ ذیل اشعار میں سے دو کی تشریح، شاعر کے حوالے کے ساتھ کریں۔

طریقہ جواب سوال نمبر ۲

☆..... ایک شعر کی تشریح کے ۵ نمبر ہیں:

حوالہ شاعر نمبر

تشریح نمبر

☆..... حوالہ شاعر میں شاعر کا نام اور ایک لقب تحریر کر دینا کافی ہے۔

☆..... تشریح کے ذیل میں شعر کا بنیادی خیال اور فنی محاسن کی نشان دہی کے ساتھ ممکنہ پس منظر موزوں الفاظ میں تحریر کیا جائے۔

☆..... ہر شعر کی تشریح میں لازمی طور پر بھرتی کے مماثل شعر شامل کرنے سے گریز کیا جائے۔

تشریح کے لیے اہم غزلیات:

۱۔ میر تقی میر (دونوں غزلیں)

۲۔ خواجہ میر درد (دونوں غزلیں)

۳۔ مرزا اسد اللہ خاں غالب (دونوں غزلیں)

۴۔ علامہ محمد اقبال (دونوں غزلیں)

☆.....☆.....☆

[۰۲]

سوال نمبر (۳): (الف) منتخب کردہ اقتباس کے مصنف اور سبق کا نام تحریر کریں۔

[۰۶]

(ب) مندرجہ ذیل میں سے کسی ایک اقتباس کی تشریح کریں۔

طریقہ جواب سوال نمبر ۳

☆..... اقتباس کی تشریح چند بنیادی نکات پر منحصر ہوتا ہے، ان نکات کی تشریح ربط و تسلسل کے ساتھ کرنا زیادہ نمبر کا مستحق بناتا ہے۔

☆..... حوالہ مصنف میں مصنف کا نام اور ایک لقب تحریر کر دینا بہت کافی ہے۔ تفصیلات کی ضرورت نہیں۔

☆..... حوالہ سبق میں سبق کا نام اور سبق کا ماخذ لکھ دینا کافی ہے۔ اضافی تفصیلات تحریر کرنے پر بھی دو ہی نمبر دیے جائیں گے۔



## اہم اقتباسات:

صفحہ نمبر	سبق کا نام	اقتباس	نمبر شمار
۷۱	سیرت محمدی ﷺ کی جامعیت	خدا کی محبت کا اہل اور..... بننے کا ذریعہ بنایا ہے۔	۱۔
۷۱	سیرت محمدی ﷺ کی جامعیت	چنانچہ اسلام میں دو..... وہ ”سنت نبوی ﷺ“ ہے۔	۲۔
۷۲	سیرت محمدی ﷺ کی جامعیت	غرض اس دنیا کا نظم و نسق..... نمونے اور مثالیں رکھتا ہے۔	۳۔
۷۲	سیرت محمدی ﷺ کی جامعیت	ایک حاکم کے لیے..... پھولوں کا گلدرستہ ہو۔	۴۔
۷۲	سیرت محمدی ﷺ کی جامعیت	اگر دولت مند ہو تو..... احد سے عبرت حاصل کرو۔	۵۔
۷۳	سیرت محمدی ﷺ کی جامعیت	اگر تم استاد اور معلم ہو تو..... فاتح مکہ کا نظارہ کرو۔	۶۔
۷۷	محسن الملک	ان میں پارس پتھر کی..... عہدہ برا ہونا آسان نہیں۔	۷۔
۷۹	محسن الملک	ان کا ذہن ایسا ترسا..... ان کا لوہا مان گئے تھے۔	۸۔
۷۹	محسن الملک	تقریر کے وقت منہ سے..... مخالف بھی مان جاتے تھے۔	۹۔
۸۰	محسن الملک	آدمی کے پہچاننے میں انہیں..... دونوں سے کام لیتے تھے۔	۱۰۔
۸۴	ڈپٹی نذیر احمد کی کہانی	آنکھیں چھوٹی چھوٹی..... کہوں تو بیچانہ ہوگا۔	۱۱۔
۸۸	مولانا محمد علی	بعض کہتے ہیں کہ وہ..... یہ کس کا فیضان ہے۔	۱۲۔
۸۹	مولانا محمد علی	مرد غازی کے کارناموں..... ڈوبتے ہوئے سورج سے۔	۱۳۔
۸۹	مولانا محمد علی	کس بلا کے بولنے والے تھے..... تاج کا نقشہ مرتب ہو رہا ہے۔	۱۴۔
۹۱	مولانا محمد علی	ملک و ملت کی جنگ اب..... جس کی خود یزید کو تلاش ہو۔	۱۵۔
۱۰۴	عزم جزم	جب انسان بچپن کی..... خود اس کا فیصلہ کرے۔	۱۶۔
۱۰۴	عزم جزم	تمام سویلا نژاد ملکوں میں..... کچھ بھی خیال نہیں۔	۱۷۔
۱۰۵	عزم جزم	کوئی زمانہ انسان پر ایسا..... عظیم الشان ہو جاتا ہے۔	۱۸۔
۱۱۰	اسلام میں گداگری کی مذمت	جس قدر قوم میں بھیک..... سم قاتل کا حکم رکھتا ہے۔	۱۹۔
۱۱۰	اسلام میں گداگری کی مذمت	سائل اپنے اندوختے کو..... کامیابی کا ذریعہ گردانتا ہے۔	۲۰۔
۱۱۴	اسلام میں گداگری کی مذمت	زبانی مجلسوں میں عورتوں..... فریب سے آگاہ کرنا چاہیے۔	۲۱۔
۱۵۳	آؤ سب مل کر کوشش کریں	آج ہماری مادی ترقی..... ہمارے لیے لمحہ فکریہ بن گئی ہے۔	۲۲۔
۱۵۳	آؤ سب مل کر کوشش کریں	پاکستان میں اس وقت..... تعلیمات سے روگردانی کا نتیجہ ہے۔	۲۳۔
۱۵۴	آؤ سب مل کر کوشش کریں	ہمیں چاہیے کہ عالمی..... خوشحالی کی جانب گامزن ہو سکیں۔	۲۴۔

سوال نمبر (۴): (الف) درج ذیل نظم کے شاعر کا مختصر تعارف تحریر کیجیے۔ [۰۲]

(ب) درج ذیل نظم کا مرکزی خیال تحریر کیجیے۔ [۰۶]

.....یا.....

(الف) درج ذیل جز کے شاعر اور نظم کا نام تحریر کیجیے۔ [۰۲]

(ب) درج ذیل جز کی تشریح کیجیے۔ [۰۶]

طریقہ جواب سوال نمبر ۴

☆.....مرکزی خیال، خلاصے کی طرز پر تفصیلی تحریر نہیں کرنا چاہیے۔

☆.....مرکزی خیال کا مقصد نظم کا بنیادی مضمون بتانا ہے لہذا کم سے کم مواد پر اتفاق کر لیا جائے۔

☆.....مرکزی خیال میں مناسب اشعار کا استعمال مستحسن ہے۔

تشریح کے لیے اہم بند:

۱۔ محبوب سبانی بند ۳

۲۔ اسرار قدرت بند ۴، بند ۵

۳۔ شکست زنداں کا خواب بند ۲، بند ۳

۴۔ حضرت فاطمہ الزہراء کی رخصتی بند ۲، بند ۴

مرکزی خیال کے لیے اہم نظمیں:

اسرار قدرت شکست زنداں کا خواب جشن بھارگی

رات اور ریل اکبر اور مغربی تعلیم

☆.....☆.....☆

سوال نمبر (۵): (الف) منتخب کردہ سبق کے مصنف کا مختصر تعارف تحریر کیجیے۔ [۰۲]

(ب) درج ذیل میں سے کسی ایک سبق کا خلاصہ تحریر کیجیے۔ [۰۶]

طریقہ جواب سوال نمبر ۵

☆.....خلاصے کا مواد اصل سبق کا تقریباً ایک تہائی ہونا چاہیے۔ اس میں وہ تمام نکات بیان کیے جائیں جن پر کہانی تعمیر ہوئی ہے۔

☆.....خلاصے میں عنوانات قائم کرنے سے گریز کیا جائے۔

☆.....اشعار کا استعمال بالکل نہیں ہونا چاہیے، کیوں کہ اشعار لکھنا خلاصے کی روح کے خلاف ہے۔

خلاصہ کے لیے اہم اسباق:

نیا قانون چور مجسمہ

آرام و سکون ہمسفر

☆.....☆.....☆



سوال نمبر (۶): اردو افسانہ..... یا..... اردو ڈراما کی مختصر تاریخ ارتقاء بیان کریں۔ [۰۸]

☆.....☆.....☆

سوال نمبر (۷): شامل نصاب غزلیات میں سے دو شعراء کے دو اشعار تحریر کیجیے۔ جو پرچہ میں نہ ہوں۔ [۰۸]

.....یا.....

مندرجہ ذیل میں سے دو سوالات کے جوابات تحریر کریں۔ [۰۸]

اہم سوالات:

- (۱) منگوا پئے اڈے کے لوگوں میں سب سے زیادہ عقلمند کیوں سمجھا جاتا تھا؟
- (۲) ڈراما "آرام و سکون" میں سرکاری دفتروں کی حالت پر کیا لطیف طنز کیا گیا ہے؟
- (۳) قرآن اور سنت سے کیا مراد ہے؟
- (۴) فتح مکہ کے موقع پر ابو سفیان نے رسول کریم ﷺ کو دیکھ کر کیا کہا تھا اور حضرت عباس رضی اللہ عنہ نے کیا جواب دیا تھا؟
- (۵) ایک مختظم اعلیٰ کی حیثیت سے محسن الملک میں کیا صفات تھیں؟
- (۶) مولوی عبدالحق نے ریاست حیدر آباد کن میں کیا اہم خدمات انجام دیں؟
- (۷) مولوی عبدالحق کو بابائے اردو کیوں کہا جاتا ہے؟
- (۸) بچوں کی تعلیم و تربیت کے سلسلے میں ان کے والدین اور مربیوں کو کن باتوں کا خیال رکھنا چاہئے؟
- (۹) ہمارے اکثر طالب علموں میں عزم و جزم کیوں پیدا نہیں ہوتا؟
- (۱۰) جو لوگ اپنے مستقبل کا فیصلہ امور عارضی پر کرتے ہیں ان کا انجام کیا ہوتا ہے؟
- (۱۱) گداگری سے کون کون سی انفرادی اور اجتماعی برائیاں جنم لیتی ہیں؟
- (۱۲) بیسویں صدی کے آغاز میں ہمارے اردو ادب کی کیا صورت حال تھی؟
- (۱۳) سجاد حیدر کو افسانہ نگار کے بجائے انشاء پرداز کہنا کیوں درست ہے؟
- (۱۴) قومی زبان کے نفاذ کے لئے کیا مشکلات درپیش ہیں؟
- (۱۵) ذریعہ تعلیم اردو ہونے سے کیا فائدہ ہوگا؟
- (۱۶) قائد اعظم نے مارچ ۱۹۴۸ء میں ڈھاکہ میں اردو کے بارے کیا اعلان کیا تھا؟
- (۱۷) شریف کمیشن نے اردو کے بارے کیا سفارش پیش کی تھی؟
- (۱۸) انبیائے کرام نے بنی نوع انسانی کو کس کس پہلو سے سنوارنے کی علمی و عملی تعلیمات دیں؟
- (۱۹) بے تحاشا اضافہ آبادی سے کون کون سے مسائل جنم لیتے ہیں؟
- (۲۰) قومی یامین الاقوامی سطح پر وسائل میں کس طرح اضافہ کیا جاسکتا ہے؟
- (۲۱) ہم کس طرح آبادی اور وسائل میں مناسب توازن رکھ سکتے ہیں؟
- (۲۲) ہمارے فضائی ماحول میں کیا خرابیاں پیدا ہوتی جا رہی ہیں؟

☆.....☆.....☆

### حصہ ”ج“ (تفصیلی جواب کے سوالات)

سوال نمبر (۸): مندرجہ ذیل میں سے کسی ایک شاعر کے اسلوب پر تبصرہ کریں۔ [۱۵]

طریقہ جواب سوال نمبر ۷

☆.....۱۵ نمبر کے اس سوال کو تین حصوں پر مشتمل ہونا چاہیے:

- ۱۔ عمدہ تمہید، تعارف۔
  - ۲۔ دس سے بارہ خصوصیات، مگر ارادہ ہو، ہر خصوصیت کے لیے مناسب شعر ذکر کیا جائے۔
  - ۳۔ تین سے چار مستند ناقدین کی آراء تحریر کی جائیں۔
- تبصرہ کے لیے اہم شعراء:

علاء اقبال	خولجہ میر درد	میر تقی میر
	فیض احمد فیض	مرزا اسد اللہ خاں غالب

☆.....☆.....☆

سوال نمبر (۹): مندرجہ ذیل میں سے کسی ایک نثر نگار کے طرزِ تحریر پر تبصرہ کریں۔ [۱۵]

طریقہ جواب سوال نمبر ۸

☆.....۱۵ نمبر کے اس سوال کو تین حصوں پر مشتمل ہونا چاہیے:

- ۱۔ عمدہ تمہید، تعارف۔
  - ۲۔ دس سے بارہ خصوصیات، مگر ارادہ ہو۔ (ہر خصوصیت کے ساتھ شعری مثال کی طرز پر نثری ٹکڑے لکھنا اچھا ہے، ضروری نہیں)
  - ۳۔ تین سے چار مستند ناقدین کی آراء تحریر کی جائیں۔
- تبصرہ کے لیے اہم نثر نگار:

رشید احمد صدیقی	مولوی عبدالحق	سر سید احمد خان
	سید سلیمان ندوی	مرزا فرحت اللہ بیگ

☆.....☆.....☆



# ADAMJEE COACHING CENTRE

## Preparation Paper 2017 – 2018

### ZOOLOGY - XII

**Important Information: Remember this is not a guess paper. The preparation paper help you that how you initiate your study**

Information for MCQs (Section – A)

For MCQ's read your text book carefully line by line and mark all important points with highlighter.

### Important Questions for Section 'B'

#### CHAPTER NO. 1 (Homeostasis)

##### Non reasoning questions:

- What is excretion? How does it occur in *Hydra*, *Planaria*, *Earth-worm* and *Cockroach*? Also mention the excretory product of animals.
- Describe role of hormones in the renal physiology.
- What is thermoregulation? Explain with reference to mammals.

##### Reasoning questions:

- Why fresh water fishes produce large quantities of dilute urine?
- Why marine invertebrates and hag-fishes do not have osmo-regulatory mechanism?
- Protonephridia are also called flame cells. Why?
- Nephron processes about 180 liters of filtrate but the kidneys excrete only about 1-2 liters of urine. Why?
- How brown fat is important for animals?
- Panting takes place in dogs. Why?
- How are waste products from the blood removed from the body in case of renal failure?
- Why kidney is considered as an excretory organ?

#### CHAPTER NO. 2 (Support & Movement)

##### Non reasoning questions:

- What are antagonistic muscles? Name the different sets of such muscles.
- What are the factors that effects muscle contraction?
- Differentiate between:
  - Bones and Cartilages*
  - Exo-skeleton and Endo-skeleton*
  - Axial & Appendicular skeleton*
  - Cardiac & smooth muscle*
- What is a joint? Name different types of joints found in vertebrates.
- Describe All or No response OR muscle fatigue?

##### Reasoning questions:

- How does a muscle become fatigued?
- Why do muscle become stiff after death
- Why does a red muscle fibre work for a prolonged period while a white muscle fibre suffers from fatigue after shorter work?
- Why muscle cells are usually called muscle fibres?
- What happens to the leg muscle of an athlete who runs a marathon race?

**CHAPTER NO. 3 (Co-Ordination & Control)****Non reasoning questions:**

- i. What is reflex action? Explain.
- ii. Differentiate between:
  - a) *CNS & PNS*
  - b) *Diffuse nervous system & Centralize nervous system*
  - c) *Nervous coordination & Chemical coordination*
  - d) *Peptide hormone & Steroid hormone*
- iii. Write a note on nervous disorders.
- iv. What are neurons? Also explain types of neurons.

**Reasoning questions:**

- i. Why pituitary gland was said to be master gland of the body?
- ii. Why dopamine is given in Parkinson's?
- iii. Why adrenaline is called "Emergency hormone"?
- iv. Why classic conditioning is called double action behavior?

**CHAPTER NO. 4 (Reproduction)****Non reasoning questions:**

- i. What are the three necessities of sexual reproduction?
- ii. Write a note on STDs.
- iii. Give a brief account on Hormonal control of reproductive cycle.
- iv. Difference between:
  - a) *Oestrous cycle & Ovarian cycle*
  - b) *External & internal fertilization*
  - c) *Oviparous & viviparous*
  - d) *Spermatogenesis & Oogenesis.*
- v. Define:
  - a) Gestation & Implantation
  - b) Placenta, amnion and umbilical cord
  - c) Lactation, Labor, puberty and menopause.

**Reasoning questions:**

- i. Why testes descend down in human male foetus before birth?
- ii. Why monozygotic twins have the same sex?
- iii. Why oxytocin is called "birth hormone"?

**CHAPTER NO. 5 (Growth & Development)****Non reasoning questions:**

- i. Describe cell differentiation or embryonic induction with mechanism.
- ii. What is the role of nucleus and cytoplasm in development?
- iii. What is aging? Explain.
- iv. Write a note on abnormal development.

**Reasoning questions:**

- i. What exactly is happening inside our bodies to bring on the wrinkles, gray hair, and the other changes seen in older people?
- ii. Cleavage in chick is called discoidal type, why?

**CHAPTER NO. 9 (Bio-Technology)**

- i. What are DNA fingerprinting, Genomic library and HGP?
- ii. Write a note on genetic diseases, tissue culture and cloning.



- iii. What are the uses and applications of biotechnology in agriculture and medicine?

**Reasoning questions:**

- i. How gene sequencing is important for us?
- ii. Why Restriction enzymes are called molecular scissors?
- iii. Why genetic counseling is important?

**CHAPTER NO. 10 (Evolution)**

- i. What is Hardy Weinberg principle? Describe it briefly.
- ii. Differentiate between Theory of Special Creating and Theory of Organic Evolution.
- iii. Explain evidences in support of organic evolution.

**Reasoning questions:**

- i. How the species become extinct? Give reason/s.
- ii. How recombinant technology opened the door of evolution?
- iii. In human beings ear muscles are greatly reduced and non functional. Why?
- iv. How do homologous organs provide evidence in support of evolution?
- v. How do embryological studies provide evidence for evolution?

**CHAPTER NO. 13 (Man and His Environment)**

**Non reasoning questions:**

- i. What are the advantages and disadvantages of nuclear energy?
- ii. Write a short note on Acid rain, Greenhouse effect and Depletion of Ozone layer.
- iii. What is eutrophication?
- iv. Differentiate between:
  - a) *Deforestation & Afforestation*
  - b) *Material pollution & Non-material pollution*
  - c) *Renewable & Non-renewable resources*

**Reasoning questions:**

- i. How algal bloom is harmful for life? Give reason.
- ii. Why industrial effluents are injurious for health?
- iii. How water is important for life?
- iv. Soil is the most important renewable natural resource, why?
- v. How human are responsible for air and soil pollution?
- vi. What are the reasons of global warming?

**Important Questions for Section 'C'**

**CHAPTER NO. 1 (Homeostasis)**

- Q.1. Write a detail note on Kidney disorders OR Function of Liver.
- Q.2. Describe the human excretory system in detail

**CHAPTER NO. 2 (Support and Movement)**

- Q.1. How does locomotion is taken place in protozoan Protoctists and animals?
- Q.2. Describe the various types of skeletons found in animals. Discuss human skeleton.

**CHAPTER NO. 3 (Co-Ordination & Control)**

- Q.1. Explain the mechanism of development and transmission of nerve impulse with label diagram.
- Q.2. What is innate or learning behavior? Discuss its different categories with examples.
- Q.3. Write a detail note on mammalian endocrine system with reference to man.

**CHAPTER NO. 4 (Reproduction)**

- Q.1. What is menstrual cycle? Discuss its various phases and the events taking place in each phase.

**CHAPTER NO. 5 (Growth & Development)**

- Q.1. What is gastrulation? Explain the formation of three germ layers in chick embryo.

**CHAPTER NO. 10 (Evolution)**

- Q.1. Describe Darwin OR Lamarck theory of evolution briefly?

**CHAPTER NO. 13 (Man and His Environment)**

- Q.1. Describe Renewable energy resources including hydroelectric power, biogas energy and Oceanic thermal gradient and non renewable energy resources (nuclear energy and fossils fuel energy)
- Q.2. Describe various types of pollution in detail?



Remember me in prayers. *GOod* luck for the exams

Notes by:-

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